

Attachment 1 - Site Inspection Report



**CHESTERFIELD COUNTY
MUNICIPAL SEPARATE STORM
SEWER SYSTEM (MS4)
INSPECTION**

**CHESTERFIELD
DEPARTMENT OF ENVIRONMENTAL ENGINEERING
9800 GOVERNMENT CENTER PARKWAY
CHESTERFIELD, VA 23832**

**FINAL
NOVEMBER 2010**

**U.S. Environmental Protection Agency, Region III
Water Protection Division
Office of NPDES Enforcement (3WP42)
1650 Arch Street
Philadelphia, PA 19103**

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EXECUTIVE SUMMARY

Municipal Separate Storm Sewer System (MS4) Inspection Report Chesterfield County, Virginia

From April 21 through 22, 2010, a compliance inspection team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3, Virginia Department of Conservation and Recreation (DCR), EPA's contractor, Eastern Research Group, Inc. (ERG), and ERG's subcontractor, PG Environmental, LLC, inspected the municipal separate storm sewer system (MS4) program of the county of Chesterfield, Virginia. Discharges from the county's MS4 are regulated by Virginia Pollution Discharge Elimination System (VPDES) Permit Number VA0088609, effective March 24, 2003. The purpose of this inspection was to obtain information for evaluating the County's compliance with Permit VA0088609, which is included in Attachment 1. The inspection focused specifically on the following sections of the Permit in relation to the county's MS4 program: (1) Part I.B.1.a - Structural and Source Control Measures; (2) Part I.B.1.b - Unauthorized Discharges and Improper Disposal; (3) Part I.B.1.c - Runoff from Industrial and Commercial Facilities; and (4) Part I.B.1.d - Runoff from Construction Sites.

Based on the information obtained and reviewed, the EPA's compliance inspection team made several observations concerning Chesterfield County's MS4 program related to the specific permit requirements evaluated. Table 1 summarizes the permit requirements and the observations noted by the inspection team.

Table 1. Observations Identified During the Chesterfield Inspection (4/21/10 – 4/22/10)

Virginia Permit Number VA0088609 Requirement	Observations
I.B – Storm Water Management Program	Observation 1. The county of Chesterfield did not maintain a written description of its current Storm Water Management Program.
I.B.1.a – Structural and Source Control Measures	No observations for this element of the permit.
I.B.1.b – Unauthorized Discharges and Improper Disposal	Observation 2. The county of Chesterfield was not providing adequate resources to complete annual dry weather screening inspections of identified outfalls. Observation 3. The county of Chesterfield was not completing and documenting follow up action taken after evidence of an illicit discharge was observed.

Table 1. Observations Identified During the Chesterfield Inspection (4/21/10 – 4/22/10)

Virginia Permit Number VA0088609 Requirement	Observations
I.B.1.c – Runoff from Industrial and Commercial Facilities	Observation 4. The county of Chesterfield did not have an industrial inspector to complete the inspections required by I.B.1.c.(1) and I.B.1.c(2) of the permit.
	Observation 5. The county of Chesterfield did not have a formal training program for identifying stormwater issues on industrial and commercial sites.
	Observation 6. The county of Chesterfield was not adequately minimizing pollutant discharges from county industrial facilities.
I.B.1.d – Runoff from Construction Sites	Observation 7. The county of Chesterfield had not developed standard procedures for consistent and progressive escalation of its available enforcement actions based on inspection observations.
	Observation 8. The county of Chesterfield Erosion and Sediment Control (ESC) inspectors did not assess non-sediment, construction site pollutant sources.
	Observation 9. The county of Chesterfield’s plan review and approval, field inspection, and plan change processes were not in accordance with the Chesterfield County Erosion and Sediment Control Ordinance for the Magnolia Lakes construction site.

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I. INTRODUCTION

From April 21 through 22, 2010, a compliance inspection team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3, Virginia Department of Conservation and Recreation (DCR), EPA's contractor, Eastern Research Group, Inc. (ERG), and ERG's subcontractor, PG Environmental, LLC, (hereafter, collectively, EPA inspection team) inspected the municipal separate storm sewer system (MS4) program of the county of Chesterfield, Virginia (hereafter, the county, Chesterfield, or the county of Chesterfield). Discharges from the county's MS4 are regulated by Virginia Pollution Discharge Elimination System (VPDES) Permit Number VA0088609, effective March 24, 2003 (hereafter, the permit). The purpose of this inspection was to evaluate compliance with the permit, which is included in Attachment 1. The following personnel participated in this inspection:

Department of Environmental Engineering ¹ :	Mr. Richard McElfish, Director Mr. Scott Flanigan, Water Quality Manager Ms. Laura Barry, Water Quality Analyst Mr. Robert Claudio, ESC Inspector for Area 5 Mr. Roger Clifton, ESC Inspector for Area 7 Mr. Weedon Cloe, Senior Water Quality Analyst Mr. Gregory King, ESC Inspection Supervisor for Team B Mr. Doug Pritchard, Erosion and Sediment Control (ESC) Program Administrator Mr. Ray Sadler, Administrative Analyst Mr. Jeff Underwood, ESC Inspection Supervisor for Team A
EPA Representatives:	Mr. Andrew Dinsmore, EPA Region 3, Stormwater Team Leader Ms. Allison Graham, EPA Region 3
Virginia DCR Representative:	Mr. Doug Fritz, MS4 Program Manager
EPA Contractors:	Mr. Mark Briggs, ERG Ms. Kavya Kasturi, ERG Mr. Scott Coulson, PG Environmental, LLC

The inspection focused specifically on the following sections of the Permit in relation to the county's MS4 program: (1) Part I.B.1.a - Structural and Source Control Measures; (2) Part I.B.1.b - Unauthorized Discharges and Improper Disposal; (3) Part I.B.1.c - Runoff from Industrial and Commercial Facilities; and (4) Part I.B.1.d - Runoff from Construction Sites.

Section II of this report presents background information on Chesterfield County's MS4 program. Section III presents information obtained during the inspection related to the specific permit requirements evaluated.

II. CHESTERFIELD BACKGROUND

The county of Chesterfield is located in central Virginia and is bordered by the James River, the Appomattox River, and the Cities of Richmond, Petersburg, Hopewell, and Colonial Heights. As of 2009, the county's population was estimated as 306,670. The county has a total area of 426 square miles.

Chesterfield's MS4 program is administered by the following departments:

¹ A copy of sign-sheets containing the names of all county participants in the inspection is included as Attachment 2.

- Department of Environmental Engineering;
- Department of Fire and EMS;
- Department of Public Utilities;
- Department of Parks and Recreation;
- Department of General Services; and
- Department of Planning.

III. INFORMATION OBTAINED DURING THE INSPECTION REGARDING PERMIT REQUIREMENTS

The EPA inspection team obtained information to evaluate the county of Chesterfield's compliance with the requirements of the permit, under which the county's MS4 system is covered. The permit, included in Attachment 1, has an effective date of 24 March 2003 and an expiration date of 23 March 2008. The EPA inspection team evaluated four permit components; observations regarding the county's implementation of each permit component are presented in the following four subsections. Attachment 3, the Exhibit Log, contains all referenced exhibits, and Attachment 4, the Photograph Log, contains all referenced photographs (additional photographs are available in the inspection record).

III.A. Requirement I.B – Storm Water Management Program

Part I.B of the permit contains requirements for the county to implement and refine a Storm Water Management Program including pollution prevention measures, management or removal techniques, use of legal authority, and other appropriate means to control the quality and quantity of stormwater discharged from the MS4. The staff responsible for the county's Storm Water Management Program include representatives from numerous organizational divisions. Exhibit 1 provides a list of the county's individual program components and the corresponding personnel tasked with their implementation. The EPA inspection team's observations related to this section of the permit are discussed below.

Observation 1. The county of Chesterfield did not maintain a written description of its current Storm Water Management Program.

Part I.B of the permit states that Chesterfield County must "continue implementation, and, where appropriate, refinement of the Storm Water Management Program...The permittee shall implement the provisions of the Storm Water Management Program required under this Part [I.B] as a condition of the permit. All applicable components of the Municipal Separate Storm Sewer System Phase I VPDES Permit Application submitted in accordance with 40 CFR 122.26, and all approved modifications are hereby incorporated by reference into the Storm Water Management Program."

Special Condition C.1 of the permit further requires the county to "ensure that all pollutants discharged from the municipal separate storm sewer system shall be reduced to the *maximum extent practicable [MEP] through the continued development and implementation of a comprehensive Storm Water Management Program* as specified in Part I.B of this permit [emphasis added]." EPA's most recent guidance on the MEP standard is found in the preamble to the final Phase II Storm Water Regulations which states "EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards" (64 *Federal Register* 68754).

The EPA inspection team formally requested "current Storm Water Management Program document—written description of your current MS4 Programs/Program Areas (e.g., MS4 Program Plan)" (Item 1 in Exhibit 2, Team 2 Records Request). However, Chesterfield County produced program description documents that were not reflective of the current Storm Water Management Program. Specifically, the documents were part of Chesterfield County's VPDES Permit Reissuance submittal (Exhibit 3, Permit

Reissuance Description). It should be noted that the *Chesterfield County Annual Stormwater Management and Monitoring Report 2009, VPDES Permit No. VA0088609* (hereafter County Annual Report 2009), includes updates or routine changes associated with the day-to-day operations of the specific components of the Storm Water Management Program. However, Chesterfield County does not maintain a written description of its current MS4 Program. Furthermore, Chesterfield County does not maintain a centralized planning document that describes how the MEP standard will be achieved, or that collects and references the tools (e.g., procedural manuals, database inventories, inspection forms) that are critical to program execution.

EPA recently conducted MS4 inspections of three other Virginia permittees. The EPA inspection team noted that all of these communities had developed MS4 Program Plan documents, likely in response to previous MS4 audits conducted in 2005 by Science Applications International Corporation, as an authorized representative of EPA (hereafter, 2005 MS4 audits). Chesterfield County had not previously undergone an EPA compliance inspection of its MS4 Program, and had not developed a MS4 Program Plan document.

III.B. Requirement I.B.1.a – Structural and Source Control Measures

Part I.B.1.a of the permit contains requirements for the county to utilize structural and source control measures to reduce pollutants in stormwater runoff from commercial and residential areas, which the county addresses through a program herein referred to as its Structural and Source Control Measures Program. Within this program area, the inspection was focused on Parts I.B.1.a(1), (2), and (4) of the permit. State laws such as the Virginian Stormwater Management Law (§ 10-603 et seq. of the Virginia Code), the Virginia Stormwater Management Regulations (4VAC3-20 et seq.), and the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq. of the Virginia Code) provide the underlying regulatory framework for the county's Structural and Source Control Measures Program. The county has promulgated the following ordinances pertaining to development and redevelopment: 1) the Chesterfield County Chesapeake Bay Preservation Ordinance (County Code Chapter 19, Article IV, Division 4, *Chesapeake Bay Preservation Areas*), 2) Chesterfield County Upper Swift Creek Watershed Ordinance (County Code Chapter 19, Article IV, Division 5, *Upper Swift Creek Watershed*), 3) Chesterfield County Floodplain Management Ordinance (County Code Chapter 19, Article III, Division 3, *Floodplain Districts and Dam Break Inundation Zones*), and 4) Chesterfield County Erosion and Sediment Control Ordinance (County Code Chapter 8, *Erosion and Sediment Control*).

The county has also developed a Stormwater Management Best Management Practice (SWM-BMP) manual for the designated Chesapeake Bay Preservation Area, or tidewater area draining to the bay. As indicated in the manual and explained by the County Department of Environmental Engineering Director, the entire county is a Chesapeake Bay Preservation Area. The manual covers topics such as plan submission, design criteria for SWM-BMPs, and water quality compliance calculations for meeting Chesterfield County Chesapeake Bay Preservation Ordinance requirements.

The primary staff responsible for the county's Structural and Source Control Measures Program include representatives of two operational teams within the County Department of Environmental Engineering: the Plans Review Team and Drainage Maintenance Operations Team. The Plans Review Team consists of two Principal Engineers and five Senior Engineers who review development plans for commercial sites and subdivisions for compliance with requirements pertaining to SWM-BMPs, drainage, floodplains, erosion and sediment control, and the county's Chesapeake Bay Preservation and Upper Swift Creek Watershed ordinances.

The county has instituted two SWM-BMP inspection and maintenance schedules that are in effect within Chesterfield County. Commercially-owned SWM-BMPs located outside the Upper Swift Creek watershed are inspected by the owner during the first year after certification and every three years

thereafter. The county utilizes maintenance agreements and/or easements in which the owner is responsible for both inspection and maintenance. Schedules are tracked through a database that determines when necessary maintenance must take place. The county's database also generates letters notifying owners of the need to perform an inspection.

In the Upper Swift Creek watershed, a source water protection area, the Drainage Maintenance Operations Team is responsible for both inspection and maintenance of SWM-BMPs located within residential subdivisions and commercially-owned properties. Inspection and maintenance is conducted using a six-month schedule.

The County Department of Environmental Engineering Administrative Analyst indicated that approximately 460 SWM-BMPs have been implemented in the county. The County Annual Report 2009 explains that a total of 188 SWM-BMPs received routine maintenance by county staff in 2009. Commercial, institutional, and governmental property owners maintained another 276 structures. Additionally, 372 SWM-BMPs were visually inspected by county staff during rain events in 2009 to monitor performance and function of the structures (e.g., risers draining, inflow and outflow conveyances clear).

On the basis of an office discussion and limited records review, no inconsistencies between the county's Structural and Source Control Measures Program and the permit were identified. Chesterfield County appeared to have the components in place which are indicative of a developed and structured program.

III.C. Requirement I.B.1.b – Unauthorized Discharges and Improper Disposal

Part I.B.1.b of the permit contains requirements for unauthorized non-stormwater discharges and improper disposal, which the county addresses through its illicit discharge detection and elimination program, detailed in its *Guidance Document for Field Screening and Detailed Investigation of the Storm Sewer System*, Revised May 21, 2002. The county is currently in the process of updating this document to reflect changes made to its procedures based on Center for Watershed Protection manuals. The Chesterfield County Illicit Discharge Ordinance (County Code Chapter 12, Article V, *Discharges to the Stormwater Sewer System*), prohibits illicit discharges to the MS4. Within this program area, the inspection was focused on dry weather screening inspections and follow up and enforcement.

County staff estimated that hundreds of stormwater outfalls are present in the county. The county has two Dry Weather Screening Inspectors who inspect between 40 and 100 major outfalls (greater than 36") a year. One inspector indicated the county had a set a goal of 80 outfall inspections per year in its application for its next VPDES MS4 permit. Inspections are typically conducted between May and October. County staff indicated that most major outfalls have been visited at least once in the past eight years.

The county prioritizes dry weather screening inspections in heavy commercial areas, areas near lakes which may have retrofit potential, and areas which have not previously been inspected. Inspectors attempt to visit problem areas approximately every three years. County staff have conducted inspections on the Midlothian Turnpike and Hull Street corridor in recent years and plan to inspect outfalls along Route 1 in 2010.

After identifying the area to inspect, the County Dry Weather Screening Inspectors take the county storm sewer maps of the region, as well as a HydroLab (an immersible probe that provides instantaneous readings of dissolved oxygen, pH, conductivity, total dissolved solids, temperature and depth), manhole puller, and blank "Outfall Reconnaissance Inventory/Sample Collection Field Sheets" (outfall field sheet) to the inspection site. An example of a completed outfall field sheet is provided as Exhibit 4, Outfall 760-701-01 Field Sheet. An outfall field sheet is completed for each outfall inspected. If the County Dry Weather Screening Inspectors identify outfalls not currently represented on the storm sewer map, one of

the inspectors will draw and label the outfalls on the map. County staff indicated that the outfalls would later be added to the county's GIS database.

The county sends two inspectors to complete each outfall inspection. During the inspection, the inspectors work together to complete the basic outfall information portion of the inspection form, survey the outfall's condition, and take photos. The inspectors also note whether the outfall has the potential for a SWM-BMP retrofit. If enough water is present, the inspectors submerge the HydroLab to measure dissolved oxygen, pH, conductivity, total dissolved solids, temperature and depth. The inspectors also collect a sample to test in the county's onsite laboratory.

If problems are noted during the inspection, the inspectors record them on the inspection report and may take follow up actions. If illicit discharges are suspected, the inspectors track the source upstream and attempt to remedy the problem at the time of inspection. If infrastructure or clogging problems are noted, the inspectors send an email to the County Drainage Superintendent for resolution. The Drainage Superintendent does not notify the inspectors after the problem has been resolved. Outfalls where problems are present are tagged as "unhealthy" in the county's tracking database. The inspectors indicated that the "unhealthy" tag alerts the inspectors that a reinspection is necessary. After identifying that a revisit is necessary, the inspectors use the paper maps and paper inspection reports to determine whether revisit has been completed and to note observations during reinspections. The county is currently streamlining this process by transferring the records into the county's GIS database.

Observation 2. The county of Chesterfield was not providing adequate resources to complete annual dry weather screening inspections of identified outfalls.

Part I.C.4 of the permit requires that Chesterfield County "provide adequate finances, staff, equipment and support capabilities to implement all parts of the Storm Water Management Program required by Part I.B of this permit." Currently, MS4 staff have identified outfalls in both industrial and commercial areas, but due to a lack of staff, these outfalls are screened during dry weather every 2 to 3 years. Based on observations made by the EPA Inspection Team and discussions with Chesterfield County MS4 staff, Chesterfield County needs two additional trained field technicians to perform outfall screening in industrial and commercial areas as required by Part I.B.1.b(2) of the permit. However, Chesterfield County has no current plans to hire these technicians due to budget constraints.

Additionally, because of the current burden placed on MS4 staff, incorporating and updating outfall locations and storm sewers in the county's GIS database is not complete. The county is in the process of transferring paper maps into a universal GIS database that can be used by all Chesterfield County departments involved with the MS4. However, the mapping project is currently a side project of the water quality analyst who is also responsible for outfall inspections, development and revision of standard operating procedures, records management, statistics, stream assessments, and minor pollution complaint response. Discussions with the water quality analyst indicated one additional staff member is needed for timely completion of this task; that staff member would be devoted to updating GIS maps with outfall information including location, outfall descriptions, maintenance requests, and outfall inspection data. However, Chesterfield County has no current plans to hire this staff member.

Observation 3. The county of Chesterfield was not completing and documenting follow up action taken after evidence of an illicit discharge was observed.

An outfall field sheet for outfall 760-701-01 completed on August 13, 2009 indicated that rancid grease was present in the outfall and investigation was necessary to determine the source (Exhibit 4, Outfall 760-701-01 Field Sheet). The EPA inspection team formally requested documentation of follow up activity at this outfall (Exhibit 5, Team 1 Email Request). One of the dry weather screening inspectors present during the inspection stated that a restaurant was located upstream of the outfall and described the actions

taken immediately after the issue was identified (Exhibit 6, Outfall 760-706-01 Follow Up). The County Dry Weather Screening Inspectors spoke to the manager of the restaurant after inspecting the outfall and determined that the restaurant had cleaned its dumpster and dumpster pad a few weeks prior. One of the inspectors informed the manager that wash water should not enter the storm drain and provided the restaurant with his contact information and a copy of the industry guide to illicit discharge. The inspector stated that no documentation of the immediate follow up action was available and that no reinspections had occurred (Exhibit 6, Outfall 760-706-01 Follow Up). Without reinspection and documentation of follow up actions, the county cannot confirm that the outfall has been cleaned and that illicit discharges have ceased as required by Part I.B.1.b(3) of the permit.

Additionally, Part I.B of the permit requires the permittee to “reduce the discharge of pollutants from the municipal separate storm sewer system to the maximum extent practicable.” However, the county does not consistently verify that maintenance needs for MS4 outfalls, identified through the outfall inspections, are addressed. County staff indicated that maintenance needs including debris and structural damage are emailed to the County Drainage Superintendent; however, the superintendent does not notify the water quality staff who are responsible for tracking the outfall conditions, after the maintenance issue has been addressed. Also, the inspectors do not notify the County Drainage Superintendent to clean outfalls after potential illicit discharges are identified, as in the case of outfall 760-706-01 described previously. This prevents the county from ensuring that pollutant discharges are reduced to the maximum extent practicable.

III.D. Requirement I.B.1.c – Runoff from Industrial and Commercial Facilities

Part I.B.1.c of the Permit contains requirements to monitor and control pollutants in stormwater discharges from certain industrial and commercial facilities. Within this program area, the inspection was focused on industrial and commercial facility identification and prioritization, inspections, and county industrial facility stormwater management.

III.D.1. Identification and Prioritization of Industrial and Commercial Facility Inspections

The county has developed the framework for an industrial inspection program. Included in the Chesterfield County industrial inspection program is the “Industrial Facility Inspection Protocol” which identifies the categories of facilities to be inspected, a prioritization scheme to select facilities for inspection, and the inspection frequency for each priority level.

The county has developed a list of all industrial and commercial facilities in Chesterfield County. The list contains approximately 334 facilities all of which are subject to industrial inspections under the “Industrial Facility Inspection Protocol” (Exhibit 7, Industrial Facility Inspection Protocol). Chesterfield County updates the list continually based on economic development information and VPDES permits.

Each facility is assigned an inspection priority category between 1 and 5. Category 1 facilities pose the least risk to the environment and do not require inspections but are maintained in the database for tracking purposes. Category 2 and 3 facilities have the potential for illicit discharges and require inspections on an as needed basis. Category 4 and 5 facilities have one or more of the following characteristics:

- Have an NPDES/VPDES permit,
- Are categorized under SARA Title III,
- Handle or create hazardous waste as a byproduct of their manufacturing process,
- Store hazardous materials, or
- Operate a municipal landfill.

These facilities pose the greatest environmental risk and require annual inspections.

III.D.2. Industrial and Commercial Facility Inspections

Chesterfield County derives its authority to conduct industrial and commercial inspections from Section 12-63 of the County Illicit Discharge Ordinance (Exhibit 8, Illicit Discharge Ordinance). The ordinance states that the county has “the authority to inspect and monitor discharges and sources of potential discharge to the storm sewer system to ensure compliance with this article, including the authority to enter upon private property to inspect or monitor such discharges or sources of potential discharge.”

While the county has the authority to conduct inspections, routine inspections have not been performed since the industrial inspector position was eliminated in 2005 due to budget constraints. County staff indicated that, due to the lack of resources, industrial inspections are only conducted as a result of a citizen complaint, if observations provided by the other county agencies warrant an inspection, or when an illicit discharge is detected during an outfall inspection. In 2009, nine inspections were conducted in response to citizen complaints. County inspectors including fire code inspectors, zoning inspectors, and industrial pretreatment inspectors all conduct regular inspections and may notify the Water Quality staff if stormwater issues are observed during their inspections. The county offers a stormwater class two to three times a year, but not all county personnel who may be involved in identifying stormwater issues are required to attend the class. The class includes basic information on common stormwater pollutants and practices to minimize pollutant discharges to the storm sewer system; however, the class does not identify stormwater issues and requirements specific to industrial and commercial sites.

The county’s “Industrial Facility Inspection Protocol” describes the facility information that should be reviewed prior to conducting an inspection. It also instructs the inspector to visually inspect the outfalls and storm drains on site and to conduct field testing using the HydroLab where dry weather flows are observed. The County Water Quality Manager described the typical steps taken during the inspection. The inspector first meets with the plant manager or the environmental supervisor and reviews the permits and stormwater pollution prevention and spill control and prevention plans. Next, an inspection of the internal areas is conducted focusing on floor drains and potential hot spots. The inspector takes photos and makes notes on a map of the facility. Outside the facility, the inspector notes impervious cover, uncovered storage areas, and vehicles in disrepair. The county has also developed industrial facility inspection forms that the inspector would use to record all pertinent information during the inspection. After an inspection is completed, the inspector uses the inspection form, his field notes, and his photos to write a memorandum to the facility describing the inspection and identifying corrective actions. The county has the ability to issue Notices of Violation if corrective actions are not completed.

Observation 4. The county of Chesterfield did not have an industrial inspector to complete the inspections required by Part I.B.1.c(1) and I.B.1.c(2) of the permit.

Part I.C.4 of the permit requires that Chesterfield “provide adequate finances, staff, equipment and support capabilities to implement all parts of the Storm Water Management Program required by Part I.B of this permit.” While Part I.B.1.c(1) and I.B.1.c(2) require inspections of industrial and commercial facilities identified by the county, the industrial inspector position was eliminated in 2005 due to county budget constraints and this position remains vacant. Routine industrial inspections have not been performed in nearly 5 years.

On April 22, 2010, during an inspection of service drive areas and trash collection areas behind a grocery store, department store (Kmart), and home improvement store (Lowe’s) located along Jefferson Davis Highway, the EPA inspection team noted grease, paint stains, and trash being discharged to the MS4. Stormwater outfalls from these particular locations had not been previously inspected by the county and the Chesterfield County inspector accompanying the EPA inspection team stated that these observations would trigger an industrial inspection. Currently, it is unknown if an industrial inspection was initiated at these locations. The EPA inspection team formally requested documentation of the industrial inspection;

however, documentation has not yet been provided (Exhibit 9, Team 1 Email Industrial Inspection Records Request). Discussions with Chesterfield County MS4 staff indicated that ideally, two additional staff would be needed to fully implement the industrial inspection program. One inspector would be responsible for high priority facilities (designated as categories 4 or 5) and the other would inspect all other facilities (categories 1 through 3). However, Chesterfield County has no current plans to hire these staff members.

Observation 5. The county of Chesterfield did not have a formal training program for identifying stormwater issues on industrial and commercial sites.

County staff indicated that while they do not have an industrial stormwater inspector, other county departments, including Fire & EMS, Industrial Pretreatment, and Zoning, all conduct inspections and notify Water Quality when stormwater issues are noted. However, not all departments require staff to be trained on the identification of stormwater issues. The county offers a stormwater class, but not all county personnel who may be involved in identifying stormwater issues are required to attend the class. Without standardized training requirements, the county cannot consistently identify stormwater issues to “monitor and control pollutants in storm water discharges” from industrial and commercial facilities as required by Part I.B.1.c of the permit.

III.D.3. County-owned Industrial Facilities

Site: Chesterfield County Fleet Maintenance Facility – 9700 Lori Lane, Chesterfield, VA

On April 21, 2010, the EPA inspection team visited the County Fleet Maintenance Facility. The facility is International Organization of Standardization (ISO) 14001 certified. The inspection began inside the garage, proceeded to the parking and damaged vehicle storage area, and also included the vehicle wash rack and the storm ditch near the front of the property. A portion of the site near the wash rack was under construction. During the site visit, the EPA inspection team observed the following:

- An uncovered garbage truck containing trash was located on site near a drainage swale in the lot.
- A police vehicle with the hood removed, exposing the battery, radiator, and brake-fluid housing to precipitation was located on the unpaved portion of the parking area.
- Sediment had accumulated in the corner of the paved parking lot.
- A silt fence protecting the MS4 drainage channel from the construction area was undermined (Photographs 1 and 2). It appeared that the silt fence had been placed in the path of concentrated flow. Sediment was present in the channel.

Observation 6. The county of Chesterfield was not adequately minimizing pollutant discharges from county industrial facilities.

Part I.C.1 of the permit states that "the permittee shall ensure that all pollutants discharged from the municipal separate storm sewer system shall be reduced to the maximum extent practicable." An inspection of the vehicle maintenance lot found that a garbage truck containing open trash had been parked adjacent to a drainage swale in the lot, and water was flowing past the garbage truck to an offsite location. The garbage truck appeared to be waiting for maintenance. In addition, one vehicle was observed with the hood removed, exposing the battery, radiator, and brake-fluid housing to precipitation. Although the county-owned vehicle maintenance facility is ISO 14001 certified and appears to have good house-keeping measures to prevent release of fluids to the MS4, additional attention should be given to vehicles placed in the county's lot waiting for service.

III.E. Requirement I.B.1.d – Runoff from Construction Sites

Part I.B.1.d of the permit requires a program to implement and maintain structural and nonstructural best management practices to reduce pollutants in stormwater runoff from construction sites, which the county addresses through a program referred to as its Erosion and Sediment Control (ESC) Program. The County ESC Program components and applicable requirements related to this section of the permit are discussed below.

The primary staff responsible for the county’s ESC Program include representatives of two operational teams within the County Department of Environmental Engineering: the Plans Review Team and Field Construction Inspections Team. The Plans Review Team is comprised of the same staff used in the county’s Structural and Source Control Measures Program. The Field Construction Inspections Team is led by the County ESC Program Administrator and is organized into two teams (i.e., Team A and Team B), each with an ESC Inspection Supervisor and four ESC inspectors which are assigned to geographic areas (i.e., Areas 1 through 8). The ESC inspectors conduct inspections pursuant to the Virginia Erosion and Sediment Control Regulations. The Virginia Erosion and Sediment Control Regulations, 4VAC50-30-60B, Maintenance and inspections, requires Chesterfield County to “provide for an inspection during or immediately following initial installation of erosion and sediment controls, at least once in every two-week period, within 48 hours following any runoff producing storm event, and at the completion of the project prior to the release of any performance bonds.”

Additionally, the County Department of Environmental Engineering has enlisted the assistance of the Building Inspections Department to conduct ESC inspections in conjunction with its building inspections of single-family dwellings. Building Inspections Department staff who conduct ESC inspections have received training through the DCR training and certification program. The Building Inspections Department staff are utilized to maintain a field presence and identify ESC issues at construction sites. The County Department of Environmental Engineering’s dedicated ESC inspectors are used to conduct follow-up and obtain corrective action for the issues identified by Building Inspections Department staff at construction sites involving single family homes.

The county uses the Program Administration Status System (PASS), a land development program database, to maintain records pertaining to both the Structural and Source Control Measures Program and the ESC Program. Specifically, PASS is used to maintain records associated with state mandated requirements for plan review, project inspection activities and frequency, and regulatory performance reporting. In 2009, the departments of Environmental Engineering and Information Systems Technology collaborated in the development of the PASS interface, which is designed for staff to enter information about projects, permits, and sureties and also view that information as part of the Department of Environmental Engineering’s processes.

Observation 7. The county of Chesterfield had not developed standard procedures for consistent and progressive escalation of its available enforcement actions based on inspection observations.

Part I.B.1.d of the permit requires a “program to continue implementation and maintenance of structural and nonstructural best management practices to reduce pollutants in storm water runoff *from* construction sites [emphasis added].”

The EPA inspection team observed that the county differentiates between what it considers to be a violation of local code and a discrepancy. PASS, for example, provides separate interface tabs for entering a discrepancy and entering a violation (Exhibit 10, PASS screenshot). The EPA inspection team questioned County Department of Environmental Engineering staff to determine how a discrepancy gets elevated to a violation (Exhibit 11, PASS permit status). The County ESC Program Administrator

explained that the county does not consider construction site operators to be in violation of local code until the operator has been issued a notice to comply, and the operator then fails to meet the timeframe for corrective action specified in the notice to comply. For example, a notice to comply dated August 12, 2009, lists a number of “deficiencies” and states “failure to comply within the time specified above will result in the issuance of a civil penalty” (Exhibit 12, Magnolia Lakes notice to comply). The County ESC Program Administrator further indicated that the county does not have an enforcement response plan or guide, and that enforcement is a discretionary process. Enforcement response plans typically provide clear guidelines for consistent and progressive escalation of the available enforcement actions based on inspection observations, particularly as it relates to recurring issues, repeat violations, and recalcitrant site operators. In contrast, the *Chesterfield County Inspectors Reference Manual* (hereafter, County ESC Inspection Manual), Section 6.0, describes a civil penalties process that begins with the inspector observing non-compliance, rather than at the initial step of identifying a discrepancy.

The EPA inspection team also questioned County Department of Environmental Engineering staff to determine what types of erosion and sediment control issues qualify as a violation of county code. The County ESC Program Administrator and ESC Inspection Supervisor for Team A indicated that they could not recall a situation that was an immediate violation of county code, and that a sediment release from a construction site is handled the same as any other type of “discrepancy.” Therefore, in the event of a sediment release, construction site operators would not be found in violation of local code until the operator has been issued a notice to comply, and the operator then failed to meet the timeframe for corrective action specified in the notice to comply. In other words, the County ESC Inspectors would provide construction site operators with the opportunity to correct a sediment release to the MS4, rather than qualifying the matter as an immediate violation of county code. Under this approach, Chesterfield County does not consider each construction site boundary as a point of operational control to reduce pollutants in stormwater runoff from construction sites, particularly in the event of a sediment release or discharge from a construction site.

As evidenced below, the EPA inspection team observed an example of this approach at a county school district construction site. Specifically, the EPA inspection team witnessed an inspection of Clover Hill High School, Genito Road (County Land Disturbance Permit No. 202868) performed by the County ESC Inspector for Area 7. During the EPA inspection team’s site visit on April 22, 2010, it was observed that silt fence and stone installed in an area of concentrated flow along Old Hundred Road had failed (Photographs 3 through 6), and sediment had been discharged from the construction site boundary (Photographs 4, 5, 7, and 8) through a drainage culvert leading under Old Hundred Road (Photographs 9 and 10). The County ESC Inspector for Area 7 did not identify this issue while on site. Both of the County ESC Inspection Supervisors (Team A and Team B) were present during the site visit, but did not express that the sediment discharged from the construction site boundary was an actionable deficiency.

Subsequent to the MS4 Inspection, the EPA inspection team reviewed the county’s inspection files containing county inspection records and follow-up responses for three construction sites that were visited as part of the MS4 Inspection. The specific county inspection records obtained and reviewed were the following: (a) Clover Hill High School, Genito Road (County Land Disturbance Permit No. 202868) records from September 16, 2009 to March 30, 2010; (b) Magnolia Lakes (County Land Disturbance Permit No. 202732) records from August 11, 2009 to November 13, 2009; and (c) Swift Creek Middle School Auditorium Addition (County Land Disturbance Permit No. 300085) records from November 3, 2009 to April 6, 2010. Collectively, 33 county ESC inspections were conducted at the three construction sites during the above-specified time periods. None of the 33 county ESC inspections identified a sediment discharge beyond the construction site boundary as an actionable discrepancy or violation. In contrast, the EPA inspection team observed sediment that had been discharged beyond the construction site boundary at both Clover Hill High School, Genito Road and Magnolia Lakes (see Observation 9 below for additional details).

In multiple inspection reports for the Clover Hill High School, Genito Road construction site, the County ESC Inspector for Area 7 indicated “site not stabilized as required” and qualified these issues as discrepancies, but the inspection records did not show progressively stricter enforcement for similar and/or recurring discrepancies (Exhibit 13, Clover Hill High School PASS Inspection). Furthermore, these inspection records did not have sufficient detail to demonstrate that specific corrective actions were taken, and appropriate follow-up enforcement responses were conducted.

Observation 8. The county of Chesterfield ESC inspectors did not assess non-sediment, construction site pollutant sources.

Part I.B.1.d of the permit requires a “program to continue implementation and maintenance of structural and nonstructural best management practices [i.e., temporary construction site BMPs] to reduce *pollutants* in storm water runoff from construction sites [emphasis added].”

In contrast to this requirement, the County ESC Inspectors have not been tasked with assessing construction site pollutant sources other than sediment-generating sources. The County ESC Inspection Supervisor for Team A explained that the County ESC Inspectors can only enforce the Chesterfield County Erosion and Sediment Control Ordinance under authority granted by the Virginia Erosion and Sediment Control Law. The Virginia Erosion and Sediment Control Regulations (4VAC50-30) have been promulgated to administer, implement, and enforce the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq. of the Virginia Code). However, the Virginia Erosion and Sediment Control Regulations pertain only to “erosion and sediment control concerns,” and mandate the adoption of erosion and sediment control programs by localities, which dictates the scope of the local program (Exhibit 14, VESCR). Section 8-1.1 of the Chesterfield County Erosion and Sediment Control Ordinance states “pursuant to Va. Code § 10-562, Chesterfield County adopts the Virginia Erosion and Sediment Control Regulations as the authority that governs the county’s local erosion and sediment control program.” Accordingly, the county’s inspection checklist does not include a non-sediment component or question set, and the PASS database system does not track non-sediment deficiencies at construction sites (Exhibit 15, PASS Inspections Checklist).

The EPA inspection team conducted site visits at the following three construction sites located in the jurisdictional boundaries of the county and/or served by the county’s MS4: 1) Clover Hill High School, Genito Road (County Land Disturbance Permit No. 202868), 2) Magnolia Lakes (County Land Disturbance Permit No. 202732), and 3) Swift Creek Middle School Auditorium Addition (County Land Disturbance Permit No. 300085). At two of the three construction sites, the EPA inspection team observed deficiencies pertaining to non-sediment pollutants such as construction chemicals, fertilizers, and fuels.

At Clover Hill High School, Genito Road, a county school district construction site, pallets of soil amendments were stored outdoors without overhead coverage (Photograph 11). The soil amendments included lime and fertilizers. One bag of fertilizer was open and the contents were wet, indicating that the soil amendments had been exposed to stormwater contact (Photographs 12 and 13). In addition, a partially-filled container of concrete chemical was stored outdoors without overhead coverage (Photograph 14).

At the Swift Creek Middle School Auditorium Addition, another county school district construction site, diesel residues were present on a fuel tank (Photograph 15). Although the fuel tank was placed in a secondary containment tub, it had accumulated standing water (Photograph 16). Standing water has the potential to increase stormwater contact with pollutants, particularly during fueling and loading operations. Additionally, a partially-filled container of concrete chemical was stored outdoors without overhead coverage (Photograph 17).

During the closing conference, the EPA inspection team had a dialogue with the county on the possibility of addressing non-sediment pollutants through the County Illicit Discharge Ordinance and empowering the County ESC Inspectors to assess non-sediment construction site pollutant sources such as: construction chemicals; vehicle and equipment maintenance and fueling; paving and grinding; spill prevention and control; solid waste; concrete waste and wash water; and sanitary/septic waste (e.g., portable toilets).

Observation 9. The county of Chesterfield’s plan review and approval, field inspection, and plan change processes were not in accordance with the Chesterfield County Erosion and Sediment Control Ordinance for the Magnolia Lakes construction site.

Part I.B.1.d(1) of the permit requires Chesterfield County to “continue to implement the requirements of the Erosion and Sediment Control Ordinance for land disturbing activities.” The Chesterfield County Erosion and Sediment Control Ordinance requires all applicants for county land-disturbance permits to submit an erosion and sediment control plan for review and approval by the county.

Section 8-7 of the Chesterfield County Erosion and Sediment Control Ordinance states “an approved [ESC] plan may be changed by the plan-approving authority when: (a) an inspection reveals that the plan is inadequate to control erosion and sedimentation and to satisfy applicable laws and/or regulations; or (b) the responsible land disturber finds that because of changed circumstances or other reasons the approved plan cannot be effectively carried out, and proposed amendments to the plan, consistent with the requirements of this chapter [Chapter 8, Erosion and Sediment Control], are agreed to by the plan-approving authority [Chesterfield County].”

The EPA inspection team conducted a site visit at the Magnolia Lakes (County Land Disturbance Permit No. 202732) construction site located in the jurisdictional boundaries of the county and/or served by the county’s MS4. Several issues were observed at the Magnolia Lakes construction site which indicated deficient application of the county’s plan review and approval, field inspection, and plan change processes. These issues are discussed below.

Sheet No. C21 of the county-approved Magnolia Lakes ESC Plan, Phase 2 specifies the implementation of temporary Sediment Basin #4, and that “all disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved” (Exhibit 16, Sheet C21). The criteria for final stabilization through the use of a permanent vegetative cover are specified in the Minimum Standards of the Virginia Erosion and Sediment Control Regulations (4VAC50-30-40). Minimum Standard No. 3 states “a permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized [e.g., paved]. Permanent vegetation shall not be considered established until a ground cover is achieved that is *uniform, mature enough to survive, and will inhibit erosion* [emphasis added].”

In contrast to Minimum Standard No. 3, the EPA inspection team observed that the intended contributing area to Sediment Basin #4 had not achieved final stabilization with permanent vegetation, and denuded areas were not otherwise permanently stabilized. Specifically, a uniform vegetative cover was not established, and rill and gully erosion was observed in the contributing area (Photographs 18 through 20). The County ESC Inspector for Area 5 indicated that the site had been seeded multiple times, but the site operator had difficulty getting the seed established.

Although the county-approved Magnolia Lakes ESC Plan, Phase 2 specifies the implementation of temporary Sediment Basin #4, and that “all disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved,” Sediment Basin #4 had been removed and/or filled-in. Photograph 21 shows the general area

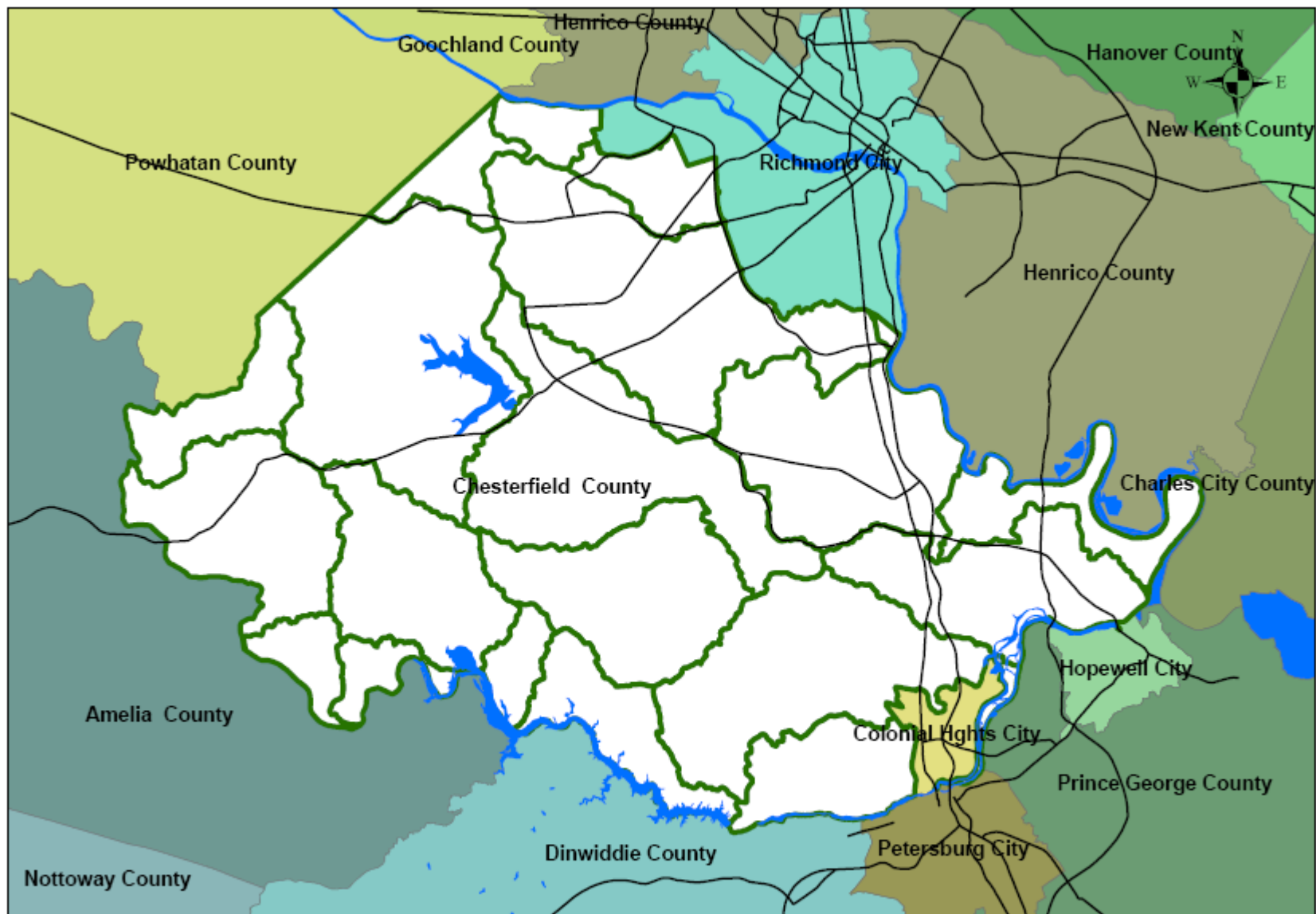
where the former Sediment Basin #4 had been located. The County ESC Inspector for Area 5 explained that he had approved the removal of Sediment Basin #4 based on an assessment of stabilization. The most recent county ESC inspection was conducted on November 13, 2009. The ESC Inspection Supervisor for Team B explained that the site had been idle for some time, and the November 13, 2009 inspection was the most recent because the operator had just recently been issued a building permit for vertical construction.

Section 8-5 of the Chesterfield County Erosion and Sediment Control Ordinance states that the county has the right to enter property having a land-disturbance permit “for the purpose of inspecting the property to determine whether the requirements of this chapter [Chapter 8, Erosion and Sediment Control] and of the approved erosion and sediment control plan are being met.” In his November 13, 2009 inspection report, the County ESC Inspector for Area 5 indicated “all denuded areas stabilized as required” and “all required structural control practices installed properly” (Exhibit 17, Magnolia Lakes PASS Inspection). However, this was not the case at the time of the EPA inspection team’s site visit on April 22, 2010. According to the ESC Inspection Supervisor for Team B, the removal of Sediment Basin #4 had been approved by the County ESC Inspector for Area 5 in a phone conversation and had not been formally documented. Based on this body of evidence, the change in the county-approved ESC plan was not carried out in accordance with Section 8-7 of the Chesterfield County Erosion and Sediment Control Ordinance.

Moreover, the EPA inspection team observed a demonstrated need for the former Sediment Basin #4. Specifically, an eroded flow pathway was observed leading from the former Sediment Basin #4 contributing area (Photographs 21 and 22). Sediment had accumulated in a down-gradient area where rock had been placed, which was likely the former Sediment Basin #4 outlet location (Photograph 23). Sections of the silt fence down-gradient of the former Sediment Basin #4 had collapsed, and sediment was observed beyond the silt fence (Photographs 24 through 26). Due to the removal of Sediment Basin #4 and the collapsed silt fence, there was a resulting discharge of sediment beyond the construction site boundary.



Additionally, a turbidity curtain had been installed approximately 75 feet down-gradient of the former Sediment Basin #4 outlet, in the receiving waterbody referred to as Sportsman Lake (Photograph 27). In another area of the site, a second turbidity curtain had been installed approximately 50 feet down-gradient of the existing Sediment Basin #1 outlet, in Sportsman Lake (Photographs 28 and 29). Part I.B.1.d(1) of the permit requires Chesterfield County to “continue to implement the requirements of the Erosion and Sediment Control Ordinance for land disturbing activities.” Section 8-6(d) of the Chesterfield County Erosion and Sediment Control Ordinance states “the [county] environmental engineer shall require all erosion and sediment control plans to comply with the conservation standards and specifications contained in the Virginia Erosion and Sediment Control Handbook before they are approved.” Sheet No. C21 of the county-approved Magnolia Lakes ESC Plan, Phase 2 specifies the implementation of turbidity curtains in these locations (Exhibit 16, Sheet C21). In contrast, the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992, Standard and Specification 3.27, Turbidity Curtain, states that turbidity curtains are applicable “where intrusion into the watercourse by construction activities and subsequent sediment movement is unavoidable.” Site conditions observed by the EPA inspection team did not suggest that intrusion into Sportsman Lake was unavoidable. As a result, the county-approved Magnolia Lakes ESC Plan was not in accordance with Section 8-6(d) of the Chesterfield County Erosion and Sediment Control Ordinance.

Attachment 2 - Jurisdictional Map

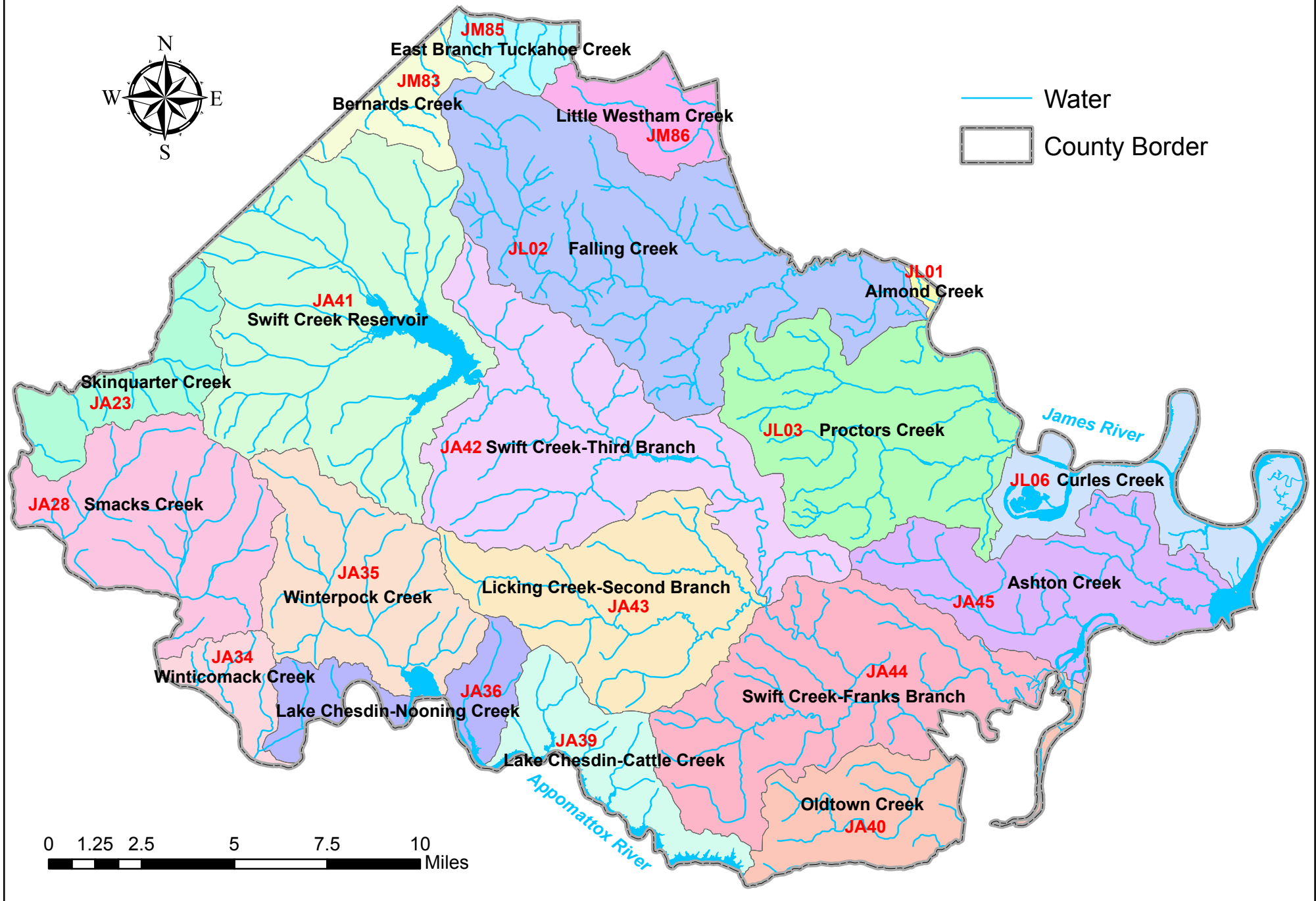


**Chesterfield County
Locational Map**

Legend

-  VAHUB Boundaries
-  Major Waters
-  Major Roads

Chesterfield County 6th Order Hydrologic Units



Attachment 3 - 303(d) Listed Segments with an approved TMDL

TMDL Name	EPA Approval	Report Location	Water Body	Location	Pollutant	WLA	units	Comment
TMDL for Appomattox River	8/30/2004	Final report	Appomattox River (1)		E.coli	6.64E+09	Cfu/yr	
			Appomattox River (2)			2.07E+11	Cfu/yr	
			Appomattox River (3)			1.14E+13	Cfu/yr	
			Swift Creek (1)			8.37E+09	Cfu/yr	
			Swift Creek (2)			1.84E+11	Cfu/yr	
			Swift Creek (3)			2.38E+11	Cfu/yr	
Bacterial TMDL for the James River and Tributaries – City of Richmond	11/4/2010	Final report	Reedy Creek		E.coli	2.60+E12	Cfu/yr	Aggregated with adjacent VDOT MS4 load
			James River (Lower)	VAP-H39R-08		1.98E+13	Cfu/yr	
			Falling Creek			1.36E+13	Cfu/yr	
			James River (Lower) delisted	VAP-H39R-08		2.74E+13	Cfu/yr	
			James River (tidal)	VAP-G01E-01		2.65E+12	Cfu/yr	
			No Name Creek			3.27E+11	Cfu/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	APPTF	Nitrogen	62,108.7	Lbs/yr	
					Phosphorus	13,646.2	Lbs/yr	
					Sediment	14,343,323.78	Lbs/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	JMSTF1	Nitrogen	954.87	Lbs/yr	
					Phosphorus	216.6	Lbs/yr	
					Sediment	37,241.25	Lbs/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	JMSTF2	Nitrogen	171,268.55	Lbs/yr	
					Phosphorus	30,450.46	Lbs/yr	
					Sediment	3,976,073.90	Lbs/yr	

Attachment 4 - NPDES Rating Worksheet

NPDES PERMIT RATING WORK SHEET

NPDES NO. VA0088609

Facility Name: Chesterfield County MS4

City: Chesterfield County

Receiving Water:

Appomattox River – Skinquarter Creek (JA23)
Appomattox River – Winterpock Creek (JA34)
Lake Chesdin – Nooning Creek (JA36)
Appomattox River – Old Town Creek (JA40)
Swift Creek – Third Branch (JA42)
Swift Creek – Franks Branch (JA44)
James River - Almond Creek (JL01)
James River - Proctors Creek (JL03),
Lower James River – Bailey Creek (JL07)
James River - East Branch Tuckahoe Creek (JM85)

Appomattox River – Smacks Creek (JA28) Winterpock Creek (JA35)
Lake Chesdin – Cattle Creek (JA39)
Swift Creek Reservoir (JA41)
Licking Creek – Second Branch (JA43)
Appomattox River - Ashton Creek (JA45)
Falling Creek (JL02)
Lower James River – Curles Creek (JL06)
James River Bernards Creek (JM83)
Little Westham Creek (JM86)

- ☒ Regular Addition
☐ Discretionary Addition
☐ Score change, but no status change
☐ Deletion

Reach Number: 1o, 1p, 4a, 5, 5a, 5b, 6, 8, 9

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
 2. A nuclear power plant
 3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate
- ☐ YES; score is 600 (stop here) ☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

- ☒ YES; score is 700 (stop here)
☐ NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: 9199 Primary SIC Code: _____ Other SIC Codes: _____
Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No Process Waste Streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: _____

Total Points Factor 1: NA

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A ☐ Wastewater Flow Only Considered

Wastewater Type (See Instructions)	Code	Points
Type I: Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow > 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50 MGD	<input type="checkbox"/> 14	30
Type II: Flow < 1 MGD	<input type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow > 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III: Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow > 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

Section B ☐ Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Percent of instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10 %	<input type="checkbox"/> 41	0
	10 % to < 50 %	<input type="checkbox"/> 42	10
	> 50 %	<input type="checkbox"/> 43	20
Type II:	< 10 %	<input type="checkbox"/> 51	0
	10 % to < 50 %	<input type="checkbox"/> 52	20
	> 50 %	<input type="checkbox"/> 53	30

Code Checked from Section A or B: _____

Total Points Factor 2: NA

FACTOR 3: Conventional Pollutants*(only when limited by the permit)*A. Oxygen Demanding Pollutant: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)			Code	Points
<input type="checkbox"/>	< 100 lbs/day		1	0
<input type="checkbox"/>	100 to 1000 lbs/day		2	5
<input type="checkbox"/>	> 1000 to 3000 lbs/day		3	15
<input type="checkbox"/>	> 3000 lbs/day		4	20

Code Checked: _____

Points Scored: _____

B. Total Suspended Solids (TSS)

Permit Limits: (check one)				
<input type="checkbox"/>	< 100 lbs/day		1	0
<input type="checkbox"/>	100 to 1000 lbs/day		2	5
<input type="checkbox"/>	> 1000 to 5000 lbs/day		3	15
<input type="checkbox"/>	> 5000 lbs/day		4	20

Code Checked: _____

Points Scored: _____

C. Nitrogen Pollutant: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)		Nitrogen Equivalent	Code	Points
<input type="checkbox"/>	< 300 lbs/day		1	0
<input type="checkbox"/>	300 to 1000 lbs/day		2	5
<input type="checkbox"/>	> 1000 to 3000 lbs/day		3	15
<input type="checkbox"/>	> 3000 lbs/day		4	20

Code Checked: _____

Points Scored: _____

Total Points Factor 3: NA**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

☐ YES (If yes, check toxicity potential number below)☒ NO (If no, go to Factor 5)

Determine the *human health* toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column ☐ check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> Process								
<input type="checkbox"/> Waste								
<input type="checkbox"/> Streams								
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: _____

Total Points Factor 4: NA

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge:*

<input type="checkbox"/>	Yes	Code 1	Points 10
<input type="checkbox"/>	No	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

<input type="checkbox"/>	Yes	Code 1	Points 0
<input type="checkbox"/>	No	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

<input type="checkbox"/>	Yes	Code 1	Points 10
<input type="checkbox"/>	No	2	0

Code Number Checked: A ____ B ____ C ____

Points Factor 5: A ____ + B ____ + C ____ = NA TOTAL

FACTOR 6: Proximity to Near Coastal Waters

- A. *Base Score: Enter flow code here (from Factor 2):* ____ *Enter the multiplication factor that corresponds to the flow code:* ____

Check appropriate facility HPRI Code (from PCS):

HPRI#	Code	HPRI Score	Flow Code	Multiplication Factor
<input type="checkbox"/>	1	1	20	
<input type="checkbox"/>	2	2	0	
<input type="checkbox"/>	3	3	30	
<input type="checkbox"/>	4	4	0	
<input type="checkbox"/>	5	5	20	
			11, 31, or 41	0.00
			12, 32, or 42	0.05
			13, 33, or 43	0.10
			14 or 34	0.15
			21 or 51	0.10
			22 or 52	0.30
			23 or 53	0.60
			24	1.00

HPRI code checked: ____

Base Score: (HPRI Score) ____ X (Multiplication Factor) ____ = ____ (TOTAL POINTS)

- B. *Additional Points* ☐ *NEP Program*
For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
<input type="checkbox"/> Yes	1	10
<input type="checkbox"/> No	2	0

- C. *Additional Points* ☐ *Great Lakes Area of Concern*
For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see Instructions)

	Code	Points
<input type="checkbox"/> Yes	1	10
<input type="checkbox"/> No	2	0

Code Number Checked: A ____ B ____ C ____

Points Factor 6: A ____ + B ____ + C ____ = NA TOTAL

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	<u>NA</u>
2	Flows/Streamflow Volume	<u>NA</u>
3	Conventional Pollutants	<u>NA</u>
4	Public Health Impacts	<u>NA</u>
5	Water Quality Factors	<u>NA</u>
6	Proximity to Near Coastal Waters	<u>NA</u>
TOTAL (Factors 1 through 6)		<u>700</u>

S1. Is the total score equal to or greater than 80? ☒ Yes (Facility is a major) ☐ No

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☐ No

☐ Yes (Add 500 points to the above score and provide reason below:

Reason:

NEW SCORE: 700

OLD SCORE: NA

Jaime Bauer
Permit Reviewer's Name

(804) 698-4416
Phone Number

July 28, 2014
Date

**Attachment 5 - Public Comment Examples and Dispensation of Requests for a
Public Hearing Memorandum**



MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY *Office of VPDES Permits*

629 E. Main Street

Richmond, Virginia 23219

804-698-4000

TO: Melanie D. Davenport, Water Division Director

FROM: Jaime L. Bauer, MS4 Permits Team Leader

DATE: December 3, 2014

SUBJECT: Dispensation of Requests for a Public Hearing
VPDES Permit No. VA0088609
Chesterfield County MS4

COPIES: James Golden, DEQ Deputy Director
Fred Cunningham, Manager - Office of Water Permits
Allan Brockenbrough, Manager - Office of VPDES Permits

BACKGROUND

On September 21, 2007, Chesterfield County submitted an application for reissuance of Virginia Pollutant Discharge Elimination System (VPDES) permit number VA0088609 for the publicly owned municipal separate storm sewer system (MS4). On November 16, 1990 as part of the Phase I Rule Making, Chesterfield County was identified in 40 CFR Part 122 as a county with an unincorporated urbanized area with a population greater than 100,000 but less than 250,000 according to the decennial census by the Bureau of the Census. Based on this criterion, the MS4 owned or operated by Chesterfield County met the definition of a medium MS4. An MS4 is a conveyance or system of conveyances owned and/or operated by a public entity, which is designed or used to collect or convey stormwater runoff and is not part of a combined sewer system or publicly owned treatment works. This may include streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains that convey stormwater and ultimately discharge to receiving waters. The MS4 permit regulates the discharge from the municipally owned or operated storm sewer system and not the municipality itself. In addition to the federal regulation, the Chesterfield County MS4 is regulated under the Virginia Stormwater Management Program Regulation 9 VAC 25-870 et seq. and VPDES Permit Regulation 9 VAC 25-31 et. seq.

The Virginia Department of Environmental Quality (DEQ) issued the first VPDES permit to Chesterfield County for discharges from the MS4 in December 1996. The permit was reissued in March 24, 2003 with a five year term that was set to expire on March 23, 2008. However, the permit was administratively continued and is the permit under which the County is currently authorized to discharge stormwater. The proposed permit continues to authorize the point source discharge of stormwater runoff and certain non-stormwater discharges from the MS4 owned or operated by Chesterfield County.

All limitations and/or conditions in the proposed draft permit are the same or more stringent than those contained in the 2003 permit. The proposed draft permit contains a significant increase in the regulatory requirements when compared to the 2003 permit. Requirements include:

- Construction site and post development stormwater runoff control
- Retrofit projects for the reduction of pollutants from stormwater from previously developed lands

- Nutrient Management Plans for the application of fertilizer, pesticides, and herbicides
- Illicit discharge and improper disposal detection program, including minimum length of sanitary sewer to be inspected to minimize exfiltration to the storm sewer
- Industrial and high risk runoff control
- Defined inspection frequency for public and privately owned stormwater infrastructure
- Good housekeeping and stormwater pollution prevention at municipal facilities
- Public education and participation
- Training of county employees
- Coordination with the Virginia Department of Transportation (VDOT) on issues of infrastructure interconnectivity
- Outfall screening to detect dry weather/illicit discharges
- Increased in-stream and biological monitoring sites and frequency
- Floatables monitoring program
- Load reductions in accordance with the Chesapeake Bay and local TMDL wasteload allocations

PUBLIC NOTICE

The draft permit was public noticed in the *Richmond Times-Dispatch* on October 3, 2014 and October 10, 2014. Copies of the proposed draft permit (Appendix 1) and fact sheet (Appendix 2) are attached.

PUBLIC COMMENTS

The public comment period began on October 3, 2014 and closed on November 3, 2014. During the 30-day public comment period comments were received from the following:

- Seven (7) non-profit environmental organizations
- 402 individual citizens; and
- One (1) state agency

Included in the comments described above were 14 requests for a public hearing. One request was made in accordance with §62.1-44.15:02 B. and regulatory requirements outlined in 9VAC25-230-40 of Procedural Rule No. 1. Thirteen (13) requests for a public hearing did not meet statutory requirements in §62.1-44.15:02 B. or regulatory requirements outlined in 9VAC25-230-40 of Procedural Rule No. 1.

LIST OF COMMENTERS - See attached Appendix 3.

SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC NOTICE PERIOD -The main concerns expressed throughout the public comment period are summarized as follows:

1. Issue: Request for public hearing in according with statutory requirements

Commenters: James River Association, Citizens - JRA Action Alert

- Request for DEQ to hold a public hearing because of significant delays in permit issuance, lack of progress in meeting Chesapeake Bay load reductions, and to allow County residents to have an input in the new permit requirements.

Agency Response: See sections below titled “Criteria for Dispensing Requests for Public Hearing” and “Staff Recommendations.”

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## **2. Issue: Chesapeake Bay TMDL and Watershed Implementation Plan (WIP) Commitments**

**Commenters:** Chesapeake Bay Foundation, CBF Action Alert – Citizens, James River Association, JRA Action Alert – Citizens, National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network

- Does not address delayed schedule to meet the Chesapeake Bay TMDL target date (2025) for reducing pollutants of concern (POC).
- Include language in permit to require permittee to address the third phase of the Chesapeake Bay TMDL Action Plan necessary to reduce POC.
- Increase percent of reductions of POC required by the permit expiration date.
- Permit asserts compliance with water quality standards and Chesapeake Bay TMDL and Watershed Implementation Plans prior to submittal of TMDL Action Plans.
- Strengthen enforceability of permit to clarify if permittee is achieving reductions required in the WIP.
- Clarify Chesapeake Bay TMDL Special Condition to indicate annual benchmarks are required.
- Include a statement that the Chesapeake Bay TMDL Action Plan is incorporated into the permit by reference.
- Draft permit does not provide for TMDL Action Plans to be incorporated into the permit after approval.
- Include a permit reopener condition to address any new wasteload allocations approved as part of the Phase III WIP.

### **Agency Response:**

In the Phase I and II Watershed Implementation Plans (WIP) and the Chesapeake Bay Total Maximum Daily Load (TMDL) report, the Commonwealth of Virginia and EPA committed to using a phased approach to achieve reductions in loadings of POC from the urban stormwater sector. Specifically, MS4 permittees are afforded three full five year permit cycles in these regulatory documents by which 100% of the reductions must be achieved. Beginning with the first reissuance of the permit after the TMDL and WIP are approved, permittees must reduce loadings from POC by 5% and begin planning for the additional required reductions.

Due to multiple delays in permit reissuance, three full permit terms now extend beyond the Chesapeake Bay Program partnership's 2025 goal for implementation of all controls necessary to meet the TMDL. Under the Phase I and II WIPs, Virginia has recognized the right to adjust this plan and take different approaches to meet the 2025 goal. Virginia is committed to a phased approach that allows multiple permit terms for MS4 permittees to fully implement nutrient and sediment reductions necessary to meet the Chesapeake Bay TMDL wasteload allocations. Virginia will adjust its commitments, if necessary, as part of its Phase III WIP to ensure that practices are in place by 2025 that are necessary to meet water quality standards in the Chesapeake Bay and its tidal tributaries. Any changes in reduction requirements as part of the Phase III WIP will be incorporated in future reissuances of the permit as necessary.

The permit requires a reduction of 5%, at a minimum, of the total required reductions for nutrient and sediment loads from existing sources by the end of the permit term and is therefore in accordance with the requirements of the Chesapeake Bay TMDL and Phase I and II WIPs. The permittee is required to submit to DEQ for review and approval a Chesapeake Bay TMDL Action Plan that includes several elements in order for the permittee to demonstrate how they will achieve the required reduction by the

end of the permit cycle. In order for DEQ to approve the Action Plan, it must include calculations of existing source loadings as of 2009 and the associated 5% reduction required; a list of best management practices that the permittee will implement to achieve the reduction requirements including supporting documentation; existing and proposed legal authorities to ensure the permittee is able to achieve reductions; and expected financial obligations associated with the reductions. In addition, the permittee is required to seek public input on the proposed reduction strategies and include in the Action Plan a description of the public participation activities and how public input was incorporated into the planned strategies. The Action Plan is considered part of the MS4 Program Plan and is incorporated by reference into the MS4 Program Plan in accordance with Part I.A.6 of the permit. The MS4 Program Plan is incorporated by reference in the permit, and is, therefore, enforceable under the federal Clean Water Act and state VSMP and VPDES regulations.

Each year, the permittee is required to submit to DEQ for review and approval an annual report that documents the strategies and best management practices employed in the previous reporting period to demonstrate implementation of the MS4 Program and compliance with the MS4 permit. Upon approval of the TMDL Action Plan, the permittee is required to include information in the annual report regarding the implementation of the TMDL Action Plan and required pollutant reductions. This includes the strategies, best management practices, and retrofit projects that were implemented during the reporting year. The permittee is also required to include in each annual report the planned measures for continued control and reduction of POC. As part of the TMDL Action Plan, the permittee is required to include a schedule by which the plan will be implemented and annual reporting by the permittee establishes a mechanism by which pollutant reductions can be tracked. Additionally, the permittee is required to make each annual report available for public review.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

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3. Issue: Public Participation and Access

Commenters: Chesapeake Bay Foundation, CBF Action Alert – Citizens, James River Association, National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network

- Require permittee to publish permit and MS4 Program Plan on the internet as well as provide a hard copy at one or more easily accessible locations.
- Adoption of the Chesapeake Bay TMDL Action Plan is a major permit modification and subject to the public participation requirements of the Virginia Administrative Code.
- Require permittee to seek public input in development of action plans.
- Adoption of the TMDL Action Plans are major permit modifications and subject to the public participation requirements of the Virginia Administrative Code. While permit includes public participation, draft permit does not contain all of the substantive requirements and additional public participation is necessary.
- Permit does not include opportunity for public input during the development of the local TMDL Action Plans.

Agency Response:

As written the draft permit requires the permittee to post the final permit, completed stormwater management plan required in Part I.B.1), and each annual report on its web page. The draft permit will be revised prior to finalization to require the permittee to post copies of the MS4 program plan on its web page at a minimum of once per year and within 30 days of submittal of the annual report to the

Department. This requirement is consistent with the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (Condition Part I.A.6).

Adoption of TMDL Action Plans is not a modification to the terms of the permit. The TMDL Action Plans are incorporated by reference to the permit, and approved plans are enforceable under the terms of the permit. The permit requirement is for the permittee to develop and implement the Action Plans as specified. The agency routinely requires permittees to develop plans that reduce pollutants or demonstrate compliance with regulations as an action outside of the permit issuance process. This provides the necessary time and flexibility for these plans to be developed or revised if necessary while still providing the agency the necessary review and approval authority.

It is the intent of the Department that the permittee provide an opportunity for public participation in the local TMDL Action Plan development. The draft permit will be revised prior to finalization to require the permittee to solicit and evaluate public comments while developing draft TMDL Action Plans. The Department will be reviewing the permittee's public participation process and how public comments were addressed in the Action Plan development

DEQ staff recommends revising the draft permit as described above.

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#### 4. Issue: Monitoring

**Commenters: CBF Action Alert – Citizens, Chesapeake Bay Foundation, National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network**

- Strengthen monitoring to be able to determine if pollutant reductions are being realized.
- Modify permit to specify ambient monitoring sites or include criteria for site selection.
- Include discharge measurements at the time of in-stream monitoring for loading evaluations.
- Biological monitoring condition does not require permittee to use general monitoring protocols in Part II.A of the permit.
- Amend monitoring requirements to specify the protocol to be followed, lists specific parameters to be assessed, require sampling twice per year in different seasons, and identify monitoring locations.
- Require permittee to develop wet weather screening for at least five (5) areas.
- DEQ must explain why monitoring in five (5) locations will be representative of County's discharges and sufficient to verify compliance with all permit limitations or require more monitoring.

#### **Agency Response:**

There are four primary watersheds (Swift Creek, Falling Creek, Appomattox River, and tributaries of the James River) in Chesterfield County. The previous permit required annual sampling from only one of the primary watersheds and did not establish a minimum number of monitoring sites. The in-stream monitoring requirements in the draft permit strengthen previous requirements by increasing the monitoring frequency to once per two months such that six (6) samples are collected each year from five (5) monitoring sites to assess ambient conditions. Biological (benthic) monitoring is required at five (5) locations at least twice per year. An increase in the required number of monitoring sites and monitoring frequency at each site will allow the permittee and DEQ to better assess the potential adverse impacts of stormwater discharges on local watersheds and evaluate data collected during a variety of conditions throughout the year.

The draft permit also expands the list of parameters for which the permittee must monitor to better characterize ambient stream conditions. In addition to the in-stream and biological monitoring requirements, the permittee is also required to perform floatables monitoring which will allow the permittee to determine BMP and public education effectiveness in controlling litter and other human generated solid refuse.

The draft permit requires that unless otherwise stated in the permit, the monitoring must be performed in accordance with federal monitoring procedures as listed in 40 CFR Part 136 as stated in Part II.A of the permit. Monitoring protocols are established in the permittee's MS4 Program Plan which is reviewed and approved by DEQ, including the sampling locations. Updates to monitoring protocols must be approved by DEQ prior to modifications being made by the permittee in accordance with the MS4 Program Plan modification procedures.

With each annual report, the permittee must provide the monitoring results and an analysis of long term trends. The increase in monitored parameters, frequency, and sites represents a significant increase in financial obligations in the monitoring portion of the permittee's MS4 Program.

Wet weather screening of the MS4 is also required to be incorporated into the monitoring program by the permittee. The purpose of wet weather screening is for the permittee to identify sources of significant pollutant loading to the MS4. Sources of significant pollutant loading may be identified through sampling and non-sampling techniques; therefore, a minimum number of sampling locations is not specified for wet weather monitoring as it is for in-stream monitoring. However, the permittee is required to develop and submit to the Department wet weather monitoring protocols for review and approval.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

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5. Issue: Maximum Extent Practicable (MEP) and Retrofit Projects

Commenters: Chesapeake Bay Foundation, National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network

- Part I.D.1.c) suggests that the implementation of only some of the action plan will be considered implementation to the MEP and demonstrates adequate progress.
- Modify permit to address compliance with MEP concept and Water Quality Standards.
- Permit condition stating that the program "reduces pollutants to the MEP" cannot be made due to on-going modifications to the MS4 Program Plan as part of the iterative nature of the program.
- Five (5) retrofit projects are insufficient. Modify permit to include additional retrofit projects and tree planting.
- Five (5) retrofit projects are less than the seven (7) retrofit project requirements in Prince William draft permit and Arlington final permit.

Agency Response:

Upon promulgating the MS4 regulations, EPA intentionally did not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis. This iterative process allows the permittee to evaluate such factors as conditions of receiving waters, size of the MS4, specific local concerns, and other aspects included in a comprehensive watershed plan. In many cases establishing numeric limitations on stormwater is not feasible. § 40 CFR 122.44 (k) of the Code of Federal Regulations and Section 9VAC25-870-460 of the VSMP regulations provide for the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible or when authorized under section 402(p) of

the Clean Water Act for the control of storm water discharges. The Department utilized the recommendations found in EPA's Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits memorandum to develop a permit that requires the iterative implementation of BMPs.

As drafted, the permit requires the permittee to implement pollutant reduction strategies that are explicitly stated in the permit as well as modify the MS4 Program Plan to include TMDL Action Plans to address pollutants for which the permittee has been assigned a wasteload allocation in approved TMDLs. The ultimate endpoint of the Action Plan is that the MS4 discharges do not cause or contribute to violations of water quality standards and that MS4 discharges are consistent with the assumptions and requirements of the TMDL. The permittee must consider these ultimate endpoints in the development, implementation, updating, and evaluation of the TMDL Action Plans. Therefore, implementation of the action plans to meet the TMDL wasteload allocations goes beyond the requirements to reduce pollutants to the MEP.

Development of the draft permit included a review of the permittee's previous stormwater program in addition to future stormwater watershed management plans. The permit requires the permittee to develop a Stormwater Capital Improvement Plan for DEQ's review. The Chesterfield County Capital Improvement Program for 2013-14 reflects projects that exceed \$100,000 in expenditures. Additionally, while DEQ tries to establish consistency in permit requirements for all MS4 permittees, permit conditions are established on a case-by-case basis and take into account program development and elements, financial expenditures, resources, and limitations for each permittee. DEQ staff has determined that five retrofit projects from the Stormwater Capital Improvement Plan are appropriate for this permittee. Tree planting is one of many BMPs that a permittee may implement to mitigate pollution discharged in stormwater. It is not a required element of a stormwater program and may not be an effective strategy for all permittees; therefore, it was not included in the permit as a requirement for retrofitting developed lands.

Compliance with implementing the BMPs required by the permit, following an approved MS4 Program Plan, and implementing the TMDL Action Plans are appropriate means by which the Department has determined the permittee's program meets the MEP standard and does not cause or contribute to a water quality violation.

Note that Part I.D.1.c) of the draft permit (Chesapeake Bay TMDL Special Condition) states that MEP and adequate progress is demonstrated upon implementation of the following: turf and landscape nutrient management plans; construction site stormwater runoff controls; post-development stormwater controls; reductions in loads of POC from existing sources, new sources, and grandfathered sources. Reduction in POC from existing sources, new sources, and grandfathered sources are required to be addressed in the Chesapeake Bay TMDL Action Plan. The Action Plan must meet the requirements of Part I.D.1.b)1)(a) through (l) in order for DEQ to approve it. Therefore, MEP and adequate progress is achieved through implementation of *all* action plan requirements.

DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.

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## **6. Issue: Permittee and VDOT Infrastructure Coordination**

### **Commenters: Chesapeake Bay Foundation**

- Establish deadlines by which permittee and VDOT resolve areas of uncertainty.
- Require permittee to control pollution on acres that are within its jurisdictional boundary but drain to the VDOT MS4.

**Agency Response:**

The MS4 program and associated requirements apply to areas served by the MS4 owned or operated by the permittee. The draft permit requires the permittee to reduce the loads of sediment and nutrients from lands that drain to the permittee's MS4. This is consistent with the pollutant reduction requirements of the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. DEQ staff believes that for this permit reissuance, reduction requirements are appropriately assigned based on the MS4 service area. In addition, the permit requires the permittee to coordinate with VDOT on areas of interconnectivity and overlapping jurisdiction. The permittee is required to submit a Chesapeake Bay TMDL Action Plan 24 months after the effective date of this permit to address pollutant reductions from their MS4. The Action Plan requires the permittee to account for their regulated acreage; therefore, areas of uncertainty will be delineated in the Action Plan due 24 months after the permit effective date. Additionally, the Action Plan must include identification of those areas within the permittee's municipal boundaries and outside of the VDOT right of way and that drain to the VDOT MS4.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

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7. Issue: Other (Local) TMDL Action Plan Special Conditions

Commenters: Chesapeake Bay Foundation, James River Association, JRA Action Alert – Citizens, National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network

- Require action plans to include compliance plan for meeting WLA with a specified end date.
- Draft permit does not contain minimum pollutant reduction requirements to be achieved during the term of the permit.
- Draft permits limit the County's compliance obligations to the specific requirements set out in the permits, which are not strong enough to ensure that the County will attain TMDL wasteload allocations.
- Draft permit does not prescribe the minimum annual interim requirements essential to schedules of compliance.
- Draft permit does not require permittee to update action plans to address TMDLs approved after permit effective date.
- Draft permit states approved action plans are incorporated by reference and do not provide for Action Plans to be incorporated into the permit. Plans constitute restrictions on discharges which are considered effluent limitations and therefore must be included in the permit.
- Draft permit does not include requirements regarding attainment of water quality standards in impaired waters for which a TMDL has not been approved and therefore the draft permit violates state and federal requirements to ensure that water quality standards are met.

Agency Response:

DEQ recognizes that reducing pollutants in stormwater discharging from a MS4 is best managed through the iterative and adaptive management process that allows the MS4 permittee to most effectively reduce pollutants through the evaluation of stormwater management practices on a regular basis. As such, reduction of pollutants to meet approved TMDL wasteload allocations may be performed over multiple permit cycles in support of the iterative approach as long as the permittee demonstrates progress in pollutant reductions is being achieved. The TMDL Action Plans will address the structural and non-structural BMPs to be implemented during the term of the permit as well as other interim milestones.

As part of the TMDL Actions Plan the permittee is required to identify BMPs and other interim milestone activities to be implemented during the remaining term of the permit and report on the implementation of the TMDL Action Plan with each annual report.

The permit does not require the permittee to address TMDLs approved after the permit effective date because it is not appropriate to impose unknown requirements as permit conditions. The draft permit contains a reopener clause that notifies the permittee that the Department may re-open the permit to address TMDLs approved after the permit effective date at which time the due process through the Procedural Rule will be given to the permittee.

Adoption of TMDL Action Plans is not a modification to the terms of the permit. The TMDL Action Plans are incorporated by reference to the permit, and approved plans are enforceable under the terms of the permit. The permit requirement is for the permittee to develop and implement the Action Plans as specified. The agency routinely requires permittees to develop plans that reduce pollutants or demonstrate compliance with regulations as an action outside of the permit issuance process. This provides the necessary time and flexibility for these plans to be developed or revised if necessary while still providing the agency the necessary review and approval authority.

Impairments for which a source has not been established will be addressed through the TMDL development process. TMDLs approved after this permit effective date will be incorporated in future reissuance of this permit.

DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.

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## **8. Issue: Miscellaneous MS4 Program Plan and Permit Requirements**

### **Commenter: CBF Action Alert – Citizens**

- Accelerate the schedule for key pollution reduction projects that can produce immediate improvements to local creeks and streams.

### **Agency Response:**

Implementation schedules defined in the draft permit were developed based on DEQ staff's best professional judgment taking into account Chesterfield County's existing MS4 Program Plan (and implementation schedule) as well as their financial capabilities over the term of the permit.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

### **Commenters: Chesapeake Bay Foundation, National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network**

- Require permittee to implement BMPs on the roads maintained by the permittee and include street sweeping program.
- Permit contains weak requirements to address runoff from county owned streets and do not contain performance metrics. Requirements are weaker than the Arlington County final permit.

### **Agency Response:**

In Chesterfield County, VDOT maintains approximately 99% of the roadways, and the permittee is responsible for maintaining the remaining 1%. The permit requires the permittee to develop protocols for minimizing pollution from county maintained roadways which allows the permittee flexibility to develop

BMPs to reduce pollutants in a manner that is most efficient and effective for the permittee rather than prescribing a specific BMP for implementation. Street sweeping is one of many BMPs that may be implemented and proposed by the permittee in these protocols.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

**Commenter: Chesapeake Bay Foundation**

- Modify permit to require the permittee to provide DEQ with analysis as to demonstrate how pollutant reductions of eliminated BMPs will be achieved.

**Agency Response:**

Upon requesting to eliminate or replace BMPs from the MS4 Program Plan, Part I.A.7.a)3) requires the permittee to provide an analysis to DEQ explaining how or why the BMPs being replaced is ineffective or infeasible including how the new BMP will achieve the reductions of the BMP being replaced.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

**Commenter: Chesapeake Bay Foundation**

- Modify permit to state that any document that forms part of the MS4 Program Plan is incorporated by reference.

**Agency Response:**

Part I.A.6 explains that while an MS4 Program Plan may be one single document, it may also consist of several documents that are incorporated by reference. In order for a document to be incorporated by reference into the MS4 Program Plan, the permittee must include the document name and latest revision date in the MS4 Program Plan.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

**Commenter: Chesapeake Bay Foundation**

- Accelerate development and implementation of nutrient management plans for County owned lands.

**Agency Response:**

The schedule for development and implementation of nutrient management plans for County owned lands is consistent with the requirements in the Chesapeake Bay WIP that requires MS4 operators to implement urban nutrient management plans on all lands owned or operated by the MS4 permittee by the end of the first five year permit cycle.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

**Commenter: Chesapeake Bay Foundation**

- Modify amount of sanitary sewer line inspection per permit cycle from 300,000 linear feet to 792,000.

**Agency Response:**

Upon review, DEQ staff determined the numeric value of 300,000 linear feet of sanitary sewer to be inspected by the permittee during the term of the permit was incorrect. On average, Chesterfield County inspects 100,000 linear feet per year of sanitary sewer line through CCTV. The value included in the permit will be revised, and the permittee will be required to inspect 375,000 linear feet of sanitary sewer during the term of the permit. This value was calculated as approximately 75% of the permittee's historical performance to allow flexibility for unpredictable circumstance such as equipment malfunctions. The source of the suggested value from the commenter is unclear.

*DEQ staff recommends revising the draft permit as described above.*

**Commenter: Chesapeake Bay Foundation**

- Clarify requirement for permittee to refer to DEQ any VPDES permitted facilities discharging significant pollutant loadings as determined by a specified number of exceedances of benchmark values demonstrated through VPDES permit monitoring.

**Agency Response:**

This permit condition will be revised prior to finalization to require the permittee to refer industrial dischargers to DEQ when evidence of significant pollutant loading to the MS4 is found by the permittee, but removes reference to the requirement that significant pollutant loading is evidenced by exceedance of benchmark values. DEQ maintains regulatory authority of VPDES-permitted industrial discharges and receives the periodic discharge monitoring reports for review to determine if a VPDES permitted industrial facility is discharging concentrations or loads greater than established benchmark values. It is the MS4 permittee's responsibility to review the periodic monitoring reports and identify significant pollutant loading to the MS4 by other means.

*DEQ staff recommends revising the draft permit as described above.*

**Commenter: Chesapeake Bay Foundation**

- Modify permit to require that all industrial outfalls discharging to the MS4 be inspected every 3 years.

**Agency Response:**

Part I.B.2.h)2) requires the permittee to identify and prioritize inspections of VPDES permitted industrial discharge outfalls and inspect each VPDES permitted industrial outfall once per five years such that all outfalls are inspected during the term of the permit. DEQ staff believes that the outfall inspection frequency implemented in concert with the permittee's illicit discharge and detection program and monitoring program is sufficient to identify and prevent potential discharges to the MS4 that may adversely impact receiving stream water quality.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

**Commenter: Chesapeake Bay Foundation**

- Require permittee to implement stormwater pollution prevention plans (SWPPPs) in addition to developing and/or updating them.

**Agency Response:**

The intent of the permit condition is that the permittee will implement the SWPPP upon developing or updating. However, for clarity the draft permit will be revised to require the permittee to “implement” the SWPPPs.

*DEQ staff recommends revising the draft permit as described above.*

**Commenter: Chesapeake Bay Foundation**

- Require stormwater management facilities database be updated within 12 months rather than 36 months.

**Agency Response:**

The permittee is required to maintain an electronic database of all known County and privately maintained stormwater management facilities that includes much more extensive information than previously required such as GIS coordinates, total pervious and impervious acres treated, etc. DEQ staff believes that 36 months is the adequate amount of time for the permittee to collect accurate information and update previous database records.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

**Commenter: National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network**

- Draft permit fails to provide sufficient DEQ oversight in the County’s strategy to address maintenance of stormwater controls (Part I.B.2.b – Post Construction Runoff).

**Agency Response:**

The permit requires the permittee to implement post construction runoff controls consistent with the Virginia Stormwater Management Program regulations as in 9VAC25-870 et seq. The permittee’s VSMP was reviewed and approved by DEQ on July 1, 2014, prior to the permit effective date.

*DEQ staff recommends that no change to the proposed permit is necessary in response to these comments.*

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9. Issue: Technical Modification

Commenters: Chesapeake Bay Foundation

- Terminology “stormwater management controls” in Part I.B.2.a)3) should be revised to “erosion and sediment controls.”

Agency Response:

Thank you for the comment. This section of the permit has been revised to clarify requirements.

10. Issue: Collaboration with permittee

Commenters: Virginia Department of Transportation

- Expressed commitment to collaborate with permittee in implementation of the MS4 program.

Agency Response:

Thank you for the commitment.

CRITERIA FOR DISPENSING REQUESTS FOR PUBLIC HEARING

§62.1 -44.15:02.C of the Code of Virginia and 9VAC25-230-50.A of Procedural Rule No. 1 states that for a public hearing to be granted: a) there must be significant public interest; b) there are substantial, disputed issues relevant to the issuance of the permit in question; and c) the action requested is not on its face inconsistent with, or in violation of, the State Water Control Law, federal law or any regulation promulgated there under. §62.1-44.15:02.C.1 of the Code further defines significant public interest as evidenced by the receipt of a minimum of 25 individual requests for public hearing or Board consideration.

STAFF RECOMMENDATIONS

Staff finds the number of individual requests for public hearing received does not meet the statutory requirements of significant public interest to qualify for convening a public hearing for the VPDES reissuance of permit VA0088609 for the Chesterfield County MS4

In addition, DEQ staff finds the proposed VPDES discharge permit VA0088609 to have been prepared in accordance with all applicable statutes, regulations and agency practices; the effluent limits and conditions in the permit have been adequately established to protect in-stream beneficial uses, fish and wildlife resources, and to maintain all applicable water quality standards; and all public comments relevant to the permit have been considered.

Based on these findings and the agency files, the draft permit is approved for issuance with the changes detailed above. Other administrative changes made for consistency with agency policies will be detailed in the fact sheet and may be approved through the final permit issuance.

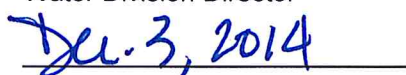
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APPROVED:


Melanie D. Davenport
Water Division Director

DATE:



Dispensation of Request for a Public Hearing
VPDES Permit No. VA0088609
Chesterfield County MS4

Appendix 1:
Proposed Draft Permit

Permit No.: VA0088609
Effective Date:
Expiration Date: [5 years after effective date]

AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA STORMWATER MANAGEMENT PROGRAM AND THE VIRGINIA STORMWATER MANAGEMENT ACT

Pursuant to the Clean Water Act as amended and the Virginia Stormwater Management Act and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

Permittee: Chesterfield County
Facility Name: Chesterfield County Municipal Separate Storm Sewer System
County Location: Chesterfield County is 427 square miles in area and is bordered by the James River, Henrico County, and City of Richmond to the North, the counties of Amelia and Powhatan to the West, the county of Dinwiddie and city of Colonial Height to the South, the county of Prince George and city of Hopewell to the East.

The owner is authorized to discharge from municipal-owned or operated storm sewer outfalls to the surface waters in the following watersheds:

Watersheds:	Stormwater from Chesterfield County discharges into twenty 6 th order hydrologic units: Appomattox River – Skinquarter Creek (JA23) Appomattox River – Smacks Creek (JA28) Appomattox River – Winterpock Creek (JA34) Winterpock Creek (JA35) Lake Chesdin – Nooning Creek(JA36) Lake Chesdin – Cattle Creek (JA39) Appomattox River – Old Town Creek (JA40) Swift Creek Reservoir (JA41) Swift Creek – Third Branch (JA42) Licking Creek – Second Branch (JA43) Swift Creek – Franks Branch (JA44) Appomattox River - Ashton Creek (JA45) James River - Almond Creek (JL01) Falling Creek (JL02) James River - Proctors Creek (JL03), Lower James River – Curles Creek (JL06) Lower James River – Bailey Creek (JL07) James River Bernards Creek (JM83) James River - East Branch Tuckahoe Creek (JM85) Little Westham Creek (JM86)	
Receiving Waters:	Powhite Creek, Grindall Creek, Pocoshock Creek, Falling Creek, Reedy Creek, Kingsland Creek, Redwater Creek, Great Branch, Proctors Creek, Johnsons Creek, James River, Skinquarter Creek, Surline Branch, Winterpock Creek, Cattle Creek, Oldtown Creek, Timsbury Creek, Church Branch, Franks Branch, Long Swamp, Rita Branch, Mann Branch, Second Branch, First Branch, Third Branch, Nuttree Branch, Dry Creek, Blackman Creek, Horsepen Creek, Little Tomahawk Creek, Tomahawk Creek, Otterdale Branch, Turkey Creek, Swift Creek, Ashton Creek, Stony Creek, Fleets Branch, Michaux Creek, No-Name Creek, West Branch, Marine Springs Branch, Roberts Branch, Spring Creek and Appomattox River. Individual outfalls from the storm sewer system may discharge to tributaries of these water bodies.	
River Basins:	James River – Middle, James River – Lower, James River – Appomattox	
Sections:	1o, 1p, 4a, 5, 5a, 5b, 6, 8, 9	
Classes:	II, III	
Special Standards:	PWS, bb, n	

The authorized discharge shall be in accordance with this cover page, Part I – Authorization, Effluent Limitations and Monitoring Requirements and Part II - Conditions Applicable To All VSMP MS4 Permits, as set forth herein.

Director, Department of Environmental Quality

Date

PART I-AUTHORIZATION, EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. DISCHARGES AUTHORIZED UNDER THIS STATE PERMIT

1. Authorized Discharges

- a) This state permit authorizes the discharge of stormwater from all existing and new municipal separate stormwater point source discharges to surface waters from the Municipal Separate Storm Sewer System (MS4) owned or operated by the Chesterfield County in Virginia.
- b) The following discharges, whether discharged separately or commingled with municipal stormwater, are also authorized by this state permit for discharge through the MS4:
 - 1) Non-stormwater discharges and stormwater discharges associated with industrial activity (defined at 9 VAC 25-31-10) that are authorized by a separate Virginia Pollutant Discharge Elimination System (VPDES) permit;
 - 2) Discharges from construction activities that are regulated under the Virginia Stormwater Management Program (VSMP) (9VAC25-870-10 et seq.) and authorized by a separate VSMP authority permit or state permit; and
 - 3) The following non-stormwater discharges unless the State Water Control Board or the permittee determines the discharge to be a significant source of pollutants to surface waters:
 - (a) water line flushing;
 - (b) landscape irrigation;
 - (c) diverted stream flows;
 - (d) rising ground waters;
 - (e) uncontaminated ground water infiltration (as defined at 40 CFR Part 35.2005(20));
 - (f) uncontaminated pumped ground water;
 - (g) discharges from potable water sources;
 - (h) foundation drains;
 - (i) air conditioning condensation;
 - (j) irrigation water;
 - (k) springs;
 - (l) water from crawl space pumps;
 - (m) footing drains;
 - (n) lawn watering;
 - (o) individual residential car washing;

- (p) flows from riparian habitats and wetlands;
 - (q) dechlorinated swimming pool discharges;
 - (r) street wash water;
 - (s) discharges or flows from fire fighting activities; and,
 - (t) other activities generating discharges identified by the Department of Environmental Quality as not requiring VPDES authorization.
- 4) Materials from a spill are not authorized unless the discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage. The permittee shall take, or require the responsible party to take, all reasonable steps to minimize or prevent any adverse effect on human health or the environment in accordance with the permittee's program under Part I.B.2.g) (Spill Prevention and Response). This state permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the permittee nor relieve the party(ies) responsible for a spill from the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302. The permittee is responsible for any reporting requirement listed under Part II.G of this state permit.

2. Permittee Responsibilities

This state permit establishes the specific requirements applicable to the permittee for the term of this state permit. The permittee is responsible for compliance with this state permit. The permittee shall implement and refine the MS4 Program Plan (as set forth in Part I.B) to ensure compliance with this state permit. The Department has determined that this program reduces the discharge of pollutants to the maximum extent practicable. Where wasteloads have been allocated for pollutant(s) of concern in an approved TMDL, the permittee shall implement the special conditions as set forth in Part I.D of this state permit. Compliance with the requirements of this state permit shall also constitute adequate progress for this permit term towards complying with the assumptions and requirements of the applicable TMDL wasteload allocations, and such that the discharge does not cause or contribute to violations of the water quality standards.

The permittee shall clearly define the roles and responsibilities of each of the permittee's departments, divisions or subdivisions in maintaining permit compliance. If the permittee relies on another party to implement portions of the MS4 Program Plan, both parties must document the agreement in writing. The agreement shall be retained by the permittee with the MS4 Program Plan. Roles and responsibilities shall be updated as necessary. Where the permittee relies on another party to implement a portion of this state permit, responsibility for compliance with this state permit shall remain with the permittee.

In the event the permittee is unable to meet conditions of this state permit due to circumstances beyond the permittee's control, a written explanation of the circumstances that prevented permit compliance shall be submitted to the Department in the annual report. Circumstances beyond the permittee's control may include abnormal climatic conditions; weather conditions that make certain requirements unsafe or impracticable; or unavoidable equipment failures caused by weather conditions or other conditions beyond the reasonable control of the permittee (operator error and failure to properly maintain equipment are not conditions beyond the control of the permittee). The failure to provide adequate program funding, staffing or equipment maintenance shall not be an acceptable explanation for failure to meet permit conditions. The Board will determine, at its sole discretion, whether the reported information will result in an enforcement action. In addition, the permittee must report noncompliance which may adversely affect surface waters or endanger public health in accordance with Part II.I.

SPECIFIC REPORTING REQUIREMENTS:

- **Each annual report shall include a current list of roles and responsibilities.**
- **Each annual report shall include a list of those episodes of non-compliance.**

3. Legal Authority

The permittee shall maintain and utilize its legal authority authorized by the Commonwealth of Virginia to control discharges to and from the MS4 in the manner established by the specific requirements of this state permit. The legal authority shall enable the permittee to:

- a) Control the contribution of pollutants to the MS4;
- b) Prohibit illicit discharges to the MS4;
- c) Control the discharge of spills and the dumping or disposal of materials other than stormwater (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;
- d) Require compliance with conditions in ordinances, permits, contracts, inter-jurisdictional agreements, or orders; and,
- e) Carry out all inspections, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the MS4.

The permittee shall review and update its ordinances and other legal authorities such as permits, orders, contracts and inter-jurisdictional agreements as necessary to continue providing adequate legal authority to control discharges to and from the MS4.

4. MS4 Program Resources

The permittee shall include a copy of each fiscal year's budget including its proposed capital and operation and maintenance expenditures necessary to accomplish the activities required by this state permit. The permittee shall describe its method of funding the stormwater program with the copy of the fiscal year budget.

SPECIFIC REPORTING REQUIREMENTS:

- **A copy of the fiscal year's budget including its proposed capital and operation and maintenance expenditures necessary to accomplish the activities required by this state permit shall be submitted with each annual report.**

5. Permit Maintenance Fees

Permit maintenance fees shall be paid in accordance with Part XIII of the Virginia Stormwater Management Program regulations (9VAC25-870-700 et seq.).

SPECIFIC REPORTING REQUIREMENTS:

- **A statement regarding payment of the applicable MS4 permit maintenance fee, including check date and check number shall be included with each annual report. Note: Please do not include copies of checks or other bank records.**

6. MS4 Program Plan

The permittee shall maintain, implement and enforce an MS4 Program Plan accurately documenting the MS4 Program including all additions, changes and modifications. For the purposes of this state permit, the MS4 Program Plan is considered a single document, but may actually consist of separate documents (e.g., dry weather screening plans, wet weather monitoring plans, TMDL Action Plans, annual reports). Policies, ordinances, strategies, checklists, watershed plans and other documents may be incorporated by reference provided the latest revision date is included in the MS4 Program Plan and all documents are available upon request. Specific reference shall be made to any ordinance more stringent than the VSMP regulations (9VAC25-870-10 et. seq.), the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.) and Regulations (9VAC25-840-10 et. seq.) and the Chesapeake Bay Preservation Act (§ 62.1-44.15:67 et seq.). The MS4 Program Plan is an enforceable part of this state permit.

Approvable updates to the MS4 Program Plan shall be submitted to, reviewed and accepted by the Department in accordance with the due dates established by this state permit. Updates to the MS4 Program Plan shall become effective and enforceable upon written approval from the Department.

The most recent MS4 Program Plan shall be posted on the permittee's website, or provided in another location easily accessible to the public.

SPECIFIC REPORTING REQUIREMENTS:

- **Utilizing the last annual report prior to this state permit effective date as a baseline, the permittee's first annual report submitted under this state permit (Initial Report) shall include the necessary updates to describe implementation of this MS4 Program Plan and meet the conditions described in this section.**
- **NOTE: For purposes of the next permit cycle, the fourth annual report submitted under this state permit will be considered the updated MS4 Program Plan to be reviewed as part of permit reissuance.**

7. MS4 Program Review and Updates

MS4 Program Review: The permittee will review the current MS4 Program annually, in conjunction with the preparation of the annual report required under Part I.E of this state permit.

a) **MS4 Program Updates and Modifications:**

Modifications to the MS4 Program are expected throughout the life of this state permit as part of the iterative process to reduce pollutant loading and protect water quality. As such, modifications made in accordance with this state permit as a result of the iterative process do not require modification of this state permit unless the Department determines the changes meet the criteria referenced in 9VAC25-870-630 or 9VAC25-870-650.

Updates and modifications to the MS4 Program may be made during the life of the permit in accordance with the following procedures:

- 1) Adding (but not eliminating or replacing) components, controls, or requirements to the MS4 Program may be made by the permittee at any time. Additions shall be reported as part of the annual report.
- 2) Updates and modifications to specific standards and specifications, schedules, operating procedures, ordinances, manuals, checklists and other documents routinely evaluated and modified are authorized under this state permit provided that the updates and modifications are

performed in a manner (i) that is consistent with the conditions of this state permit, (ii) that ensure public notice and participation requirements established in this state permit are followed, and (iii) that the updates and modifications are documented in the annual report.

- 3) Replacing, or eliminating without replacement, any ineffective or infeasible strategies, policies and Best Management Practices specifically identified in this state permit with alternate strategies, policies and Best Management Practices (BMP) may be requested at any time. Such requests shall include the following:
 - (a) An analysis of how and / or why the BMPs, strategies, or policies are ineffective or infeasible including information on whether the BMPs, strategies, or policies are cost prohibitive;
 - (b) Expectations on the effectiveness of the replacement BMPs, strategies or policies;
 - (c) An analysis of how the replacement BMPs are expected to achieve the goals of the BMPs to be replaced;
 - (d) A schedule for implementing the replacement BMPs, strategies and policies;
 - (e) An analysis of how the replacement strategies and policies are expected to improve the permittee's ability to meet the goals of the strategies and policies being replaced; and,

Requests or notifications shall be made in writing to the Department and signed in accordance with 9VAC25-870-370 of the VSMP regulations. Modifications to the MS4 Program Plan shall become effective and enforceable upon written approval from the Department. Major modifications to the MS4 Program Plan as defined in 9VAC25-870-10 may require that the permit be reopened and modified pursuant to 9VAC25-870-630.

b) ***MS4 Program Updates Requested by the Department of Environmental Quality:***

In a manner and following procedures in accordance with the Virginia Administrative Processes Act, the Virginia Stormwater Management Program regulations and other applicable State laws, statutes and regulations, the Department may request changes to the MS4 Program to assure compliance with the statutory requirements of the Virginia Stormwater Management Act and associated regulations and to:

- 1) Address impacts on receiving water quality caused by discharges from the MS4;
- 2) Include more stringent requirements necessary to comply with new State or Federal-statutory or regulatory requirements; or
- 3) Include such other conditions necessary to comply with State or Federal statutory or regulatory requirements.

Proposed changes requested by the Department shall be made in writing and set forth the basis for and objective of the modification as well as the proposed time schedule for the permittee to develop and implement the modification. The permittee may propose alternative program modifications and/or time schedules to meet the objective of the requested modification, but any such modifications are at the discretion of the Department.

SPECIFIC REPORTING REQUIREMENTS:

- **All modifications and proposed modifications shall be reported in accordance with this section of the permit.**

B. STORMWATER MANAGEMENT

The following subparts describe the requirements for the permittee to implement in its MS4 Program during this state permit term:

1. Planning

No later than 12-months after the effective date of this state permit, the permittee shall submit to the Department, a Storm Water Capital Improvement Plan including cost-benefit analyses for projects within the County for implementation during the term of this permit. The cost-benefit analyses shall include but are not limited to: the number of BMP acres treated, impervious area draining into BMP, condition of the downstream channel, amount of pollutant reduction, feasibility for implementation, the unit costs for pollutant reduction and other benefits from the proposed BMP. The Storm Water Capital Improvement Plan shall also include a tentative schedule for project implementation.

The permittee shall continue to seek public comment in development of the updated plan. A copy of the completed plan shall be placed on the permittee's web-site.

SPECIFIC REPORTING REQUIREMENTS:

- **The permittee shall provide the Department a web link to the Storm Water Capital Improvement Plan no later than 12 months after the effective date of this state permit.**

2. MS4 Program Implementation

a) *Construction Site Runoff*

- 1) The permittee shall continue to implement a local erosion and sediment control program to reduce the discharge of pollutants from land disturbing activities that is consistent with the Virginia Erosion and Sediment Control Law and attendant regulations. If through a review of the Erosion and Sediment Control Program by the Department, the permittee's program is found not to be consistent with the Virginia Erosion and Sediment Control Laws and Regulations, the permittee shall implement all required items detailed in an approved Corrective Action Agreement (CAA) with the Board in accordance with the schedule in the CAA.
- 2) The permittee shall require erosion and sediment controls in areas identified by the County as erosion impact areas as defined at § 62.1-44.15:51 of the Code of Virginia.
- 3) The permittee shall maintain an accurate list of all stormwater management controls in the MS4 program plan that are more stringent than those required under 9VAC25-840-10 et seq. that have been adopted by ordinance in accordance with § 62.1-44.15:65 of the Code of Virginia.
- 4) On a monthly basis (or in accordance with an alternative schedule provided in writing by the Department), the permittee shall submit to the Department a list of approved land disturbing activities that are 1) greater than or equal to one acre, 2) part of a common plan of development or sale that results in an overall land disturbance that is greater than one acre or 3) a land disturbance greater than 2,500 square feet occurring in a Resource Management Area or Resource Protection Area as defined at 9VAC25-830-40. For each land-disturbing activity, the permittee shall submit the activity's location, total acreage disturbed and land disturber's contact information.
- 5) The permittee shall require that large construction activities and small construction activities as defined at 9VAC25-870-10 including municipal construction activities have secured separate VSMP authorizations to discharge stormwater.

- 6) The permittee shall require the implementation of appropriate controls to prevent non-stormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections. The discharge of non-stormwater discharges other than those identified in Part I.A.1 through the MS4 is not authorized by this state permit.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall contain the number of regulated land disturbing activities approved and the total number of acres disturbed.
- Each annual report shall contain the number of inspections conducted and the number and type of each enforcement action taken.

b) ***Post Construction Runoff from Areas of New Development and Development on Prior Developed Lands***

- 1) The permittee shall continue enforcement of local ordinances related to the control of stormwater runoff from new development and development on prior developed lands. Local ordinances shall be updated as required by statutory or regulatory requirements in order to remain consistent with Virginia Stormwater Management Program regulations (9VAC25-870-10 et. seq.).
- 2) The permittee shall maintain and update as necessary a list of all stormwater management controls in the MS4 program plan that are more stringent than those required under 9VAC25-870-10 et seq. that have been adopted by ordinance in accordance with § 62.1-44.15:33 of the Code of Virginia. The permittee shall continue to approve plans implementing these additional stormwater management controls in areas identified by the County as requiring additional water quality protection under the provisions of the Chesterfield County Code.
- 3) Where the permittee has adopted more stringent requirements or implemented a regional or watershed-wide stormwater management plan, it may request, in writing, that the Department consider these requirements as part of its review of state projects within the County's jurisdictional boundaries.
- 4) The permittee shall maintain and update as necessary a list of all stormwater management controls in the MS4 program plan that are more stringent than those required under 9VAC25-840-10 et seq. that have been adopted by ordinance in accordance with § 62.1-44.15:65 of the Code of Virginia.
- 5) The permittee shall continue to require adequate long-term operation and annual maintenance of stormwater management facilities by the responsible party. The permittee shall retain copies of these recorded maintenance instruments for its use.

Should the permittee choose a strategy other than a maintenance agreement to address long term maintenance of stormwater control measures that are designed to treat stormwater runoff solely from the individual residential lot on which they are located, the permittee shall develop a written strategy no later than 12-months after the effective date of this state permit and shall include periodic inspections, homeowner outreach and education, maintenance agreements or other methods targeted at promoting the long term maintenance of such facilities.

- 6) Stormwater management facilities shall be tracked in accordance with Part I.C.5 of this state permit.

SPECIFIC REPORTING REQUIREMENTS:

- The initial annual report shall include the permittee's strategy to address maintenance of stormwater management controls that are designed to treat stormwater runoff solely from the individual residential lot on which they are located.
- The initial annual report shall include a list of all land disturbing projects that qualify under the 'Grandfathering' provision of the VSMP regulations found at 9VAC25-870-48.
- Each annual report shall include a summary of actions taken by the permittee to implement statutory and regulatory requirements of the Virginia Stormwater Management Program regulations.

c) ***Retrofitting on Prior Developed Lands***

From the Storm Water Capital Improvement Plan required in Part I.B.1, the permittee shall select no less than five projects for completion no later than 54 months after the effective date of this state permit. The permittee shall submit a summary of the projects selected for implementation and proposed schedule for the review and approval to the Department to ensure that the projects will reduce pollutants to the maximum extent practicable (MEP). The Department may request alternative and/or additional projects if the five selected projects do not meet the MEP standard.

The permittee shall submit a status of the selected projects and updated schedule for implementation to the Department with each annual report. The permittee may substitute alternative retrofit projects if opportunity exists provided that similar screening is applied to the substituted project as that in the watershed retrofit plans and that the alternative projects are also reviewed and approved by the Department.

The permittee shall track the number of retrofit projects, type of land use being retrofitted, total acreage retrofitted, total impervious and pervious acreage, and retrofit type by the watershed identified in the retrofit study and location by latitude and longitude (in degrees, minutes and seconds) so that it is possible to calculate the pollutant reductions associated with the project.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall include a status update for those projects for which implementation began during the reporting period.

d) ***Roadways*** County streets, roads, and parking lots maintained by the permittee shall continue to be operated and maintained in a manner to minimize discharge of pollutants, including those pollutants related to deicing or sanding activities.

- 1) No later than 12-months after the effective date of this state permit, the permittee shall develop and maintain an accurate list of county maintained roads, streets, and parking lots that includes the street name, the miles of roadway treated without BMPs, and miles of roadway treated with BMPs.
- 2) No later than 36-months after the effective date of this state permit, the permittee shall develop and implement written protocols for county road, street, and parking lot maintenance, equipment maintenance and material storage designed to minimize pollutant discharge.
- 3) Materials utilized for deicing and sanding activities shall remain covered from precipitation until application.

SPECIFIC REPORTING REQUIREMENTS:

- The permittee shall include a copy of the written protocols identified in **Part I.B.2.d)(2)** with the next annual report that is due after development of the protocols.
- e) ***Pesticide, Herbicide, and Fertilizer Application*** The permittee shall continue to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied to County rights of way, parks, and other County property, as follows:
- 1) The permittee shall develop and implement turf and landscape nutrient management plans that have been developed by a certified nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all County lands where nutrients are applied to a contiguous area greater than one acre in accordance with the following schedule:
 - (a) No later than 12-months after the effective date of this state permit the permittee shall identify all County lands where nutrients are applied to a contiguous area of more than one acre. A latitude and longitude shall be provided for each such piece of County land.
 - (b) The permittee shall develop and implement turf and landscape nutrient management plans on all County lands where nutrients are applied to a contiguous area of more than one acre. The following measurable goals are established for the development and implementation of turf and landscape nutrient management plans.
 - (1) No later than 24-months after the effective date of this state permit, not less than 15% of all identified acres will be covered by turf and landscape nutrient management plans.
 - (2) No later than 36-months after the effective date of this state permit, not less than 40% of all identified acres will be covered by turf and landscape nutrient management plans.
 - (3) No later than 48-months after the effective date of this state permit, not less than 75% of all identified acres will be covered by turf and landscape nutrient management plans.
 - (c) The permittee shall annually track the following:
 - (1) The total acreage of County lands upon which nutrients are applied and controlled using general County guidelines or standard operating procedures;
 - (2) The acreage of County lands where turf and landscape nutrient management plans are required; and,
 - (3) The acreage of County lands covered by turf and landscape nutrient management plans have been implemented.
 - 2) The permittee shall continue to employ good housekeeping / pollution prevention measures in the application, storage, transport and disposal of pesticides, herbicides and fertilizers.
 - 3) The permittee may regulate the use, application, or storage of fertilizers pursuant to §3.2-3602 of the Code of Virginia.
 - 4) The permittee shall not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks or other paved surfaces.

- 5) The permittee shall track the acreage of county lands managed under Integrated Pest Management Plans.

SPECIFIC REPORTING REQUIREMENTS:

- The initial report shall contain a list of all County lands and applicable acreage on which nutrients are applied to more than one contiguous acre.
 - Each annual report shall report on compliance with the turf and landscape nutrient management plan implementation schedule and include a list of the County properties for which turf and landscape nutrient management plans have been implemented during the reporting year and the cumulative total of acreage under turf and landscape nutrient management plans.
 - Each annual report shall include the number of acres managed under Integrated Pest Management Plans.
- f) ***Illicit Discharges and Improper Disposal*** Discharges to the MS4 not authorized by this state permit shall be effectively prohibited.
- 1) In accordance with Part I.A.1.b), certain non-stormwater discharges to the MS4 need not be addressed as illicit discharges or improper disposal. The MS4 Program shall identify any non-stormwater discharges listed under Part I.A.1.b), where the permittee has imposed any conditions on the discharges to the MS4. The permittee shall prohibit, on a case-by-case basis, any individual non-stormwater discharge (or class of non-stormwater discharges) otherwise allowed under this paragraph that is determined to be contributing significant amounts of pollutants to the MS4.
 - 2) The permittee shall continue implementing a sanitary sewer inspection program to maintain the integrity of the sanitary system.

The permittee shall inspect a minimum of 300,000 linear feet of sanitary sewer during this permit cycle.
 - 3) The permittee will continue to implement a program to reduce the discharge of floatables (e.g. litter and other human-generated solid refuse) in accordance with Part I.C.3.
 - 4) The permittee shall prohibit the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into separate storm sewers. The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (such as oil and antifreeze) for recycling, reuse, or proper disposal and to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycling, reuse, or proper disposal. Such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis no less than twice per year.
 - 5) The permittee shall continue to implement a program to locate and eliminate illicit discharges and improper disposal into the MS4. This program shall include dry weather screening activities to locate portions of the MS4 with suspected illicit discharges and improper disposal, as described in Part I.B.2.m)(1) of this state permit.
 - 6) The permittee shall require the elimination of illicit discharges and improper disposal practices within 30-days of discovery. Where elimination of an illicit discharge within 30-days is not possible, the permittee shall require an expeditious schedule for removal of the discharge. In the interim, the permittee shall require the operator of the illicit discharge to take all reasonable and prudent

measures to minimize the discharge of pollutants to the MS4.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall include a list of illicit discharges identified, the source, a description of follow-up activities and whether the illicit discharge has been eliminated.
- Each annual report shall include the amount of linear feet of sanitary sewer inspected during the reporting year.

- g) **Spill Prevention and Response** The permittee shall continue to implement a program that coordinates with the Fire Department and other County Departments resources to prevent, contain, and respond to spills that may discharge into the MS4. The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittee's jurisdiction.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall include a list of spills, the source, and a description of follow-up activities taken.

- h) **Industrial & High Risk Runoff** The permittee shall implement a program to identify and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities (e.g., municipal landfills; other treatment, storage, or disposal facilities for municipal waste; hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313) and any other industrial or commercial discharges the permittee determines are contributing a substantial pollutant loading to the MS4.

- 1) The permittee shall maintain, and update as necessary, a list of all known industrial and high-risk dischargers to the MS4. This list will include VPDES industrial stormwater permits and industrial stormwater facilities granted "no-exposure" certification by DEQ.
- 2) No later than 12-months after the effective date of this state permit, the permittee shall develop and implement a prioritized schedule and procedure to inspect outfalls of facilities with VPDES industrial stormwater permits and facilities granted "no-exposure" certification at the point of connection to the MS4. Prioritization may be based on historical discharges, local water quality impairments, industrial category or other methods selected by the permittee. The permittee shall inspect all VPDES-permitted industrial outfalls connected to its MS4 a minimum of once every five years.
- 3) The permittee shall review copies of all discharge monitoring reports (DMRs) submitted to the permittee by all VPDES industrial stormwater permits as part of the permittee's investigations of substantial pollutant loadings. The permittee may conduct additional monitoring, or may require the facility to conduct additional monitoring, of any stormwater discharges it believes may be a source of significant pollutant loadings.
- 4) The permittee shall coordinate with DEQ to report any non-VPDES-permitted industrial facility from which the permittee has evidence that a significant pollutant load is entering the MS4 system. Inspections of facilities for which the permittee has evidence of substantial pollutant loading may be carried out in conjunction with other county programs (e.g., pretreatment inspections of industrial users, health inspections, fire inspections, etc.), but shall include inspections for facilities not normally visited by the permittee.
- 5) The permittee shall refer the following facilities to the Department of Environmental Quality,

Piedmont Regional Office, for DEQ compliance review under the Virginia State Water Control Law:

- (a) Facilities and operations having non-stormwater discharges that do not have coverage under an existing VPDES permit;
 - (b) Facilities and operations identified pursuant to 40 CFR Part 122.26(b)(14) with manufacturing, processing, or raw materials storage outside that do not have coverage under an existing VPDES industrial stormwater permit.
 - (c) Any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4 as determined by a continued or regular exceedence of effluent limitations or benchmarks demonstrated by monitoring conducted as a requirement of the VPDES permit.
 - (d) Facilities that do not submit signed copies of DMRs to the permittee as required under a VPDES industrial stormwater permit.
- 6) The permittee shall maintain a list of any industrial and / or commercial stormwater dischargers not regulated under the Virginia State Water Control Law that it determines may be contributing a significant pollutant loading to the MS4. This list may be individual discharges or categories of discharges.
- (a) Outfalls from these facilities shall be included in the prioritized inspection schedule.
 - (b) The list shall include, but shall not be limited to, major automotive facilities such as repair shops, body shops, auto detailers, tire repair shops and service stations.
 - (c) The permittee shall require control measures as necessary and/or appropriate for stormwater discharges from these dischargers.

SPECIFIC REPORTING REQUIREMENTS:

- **The initial report shall include a list of all known industrial and high risk dischargers including any non-VPDES regulated industrial and commercial stormwater dischargers determined by the permittee as contributing a significant pollutant load and that discharge to the MS4 system, a schedule of inspections and procedures for inspecting outfalls.**
 - **Each annual report shall report on implementation of the inspection schedule and include a list of the facilities and/or facility outfalls inspected during the reporting period.**
 - **Each annual report shall include a document listing DEQ coordination activities.**
- i) **Storm Sewer Infrastructure Management** The permittee shall continue to maintain and implement programs to maintain the County's stormwater infrastructure and to update the accuracy and inventory of the storm sewer system.
- 1) For stormwater management (SWM) facilities and easements maintained by the permittee and residential properties where SWM facilities, BMP and Storm Drainage Systems qualify for County maintenance (excluding apartments and mobile home parks), the following conditions apply:
- (a) The permittee shall provide for adequate long-term operation and maintenance of its SWM facilities in accordance with written inspection and maintenance procedures included in the MS4 Program Plan.

- (b) The permittee shall, at a minimum, inspect annually all SWM facilities. The permittee may choose to implement an alternative schedule to inspect these SWM facilities based on a risk assessment that includes facility type and expected maintenance needs provided that the alternative schedule is included in the MS4 Program Plan in accordance with plan modifications as listed in Part I.A.7 of this state permit.
 - (c) The permittee shall conduct maintenance on SWM facilities as necessary.
 - (d) The permittee shall continue its stormwater system and easement inspection program and shall inspect no less than 20% of the MS4 annually.
 - (e) The permittee shall dispose of all wastes and wastewaters collected during catch basin/stormwater system cleaning in accordance with appropriate law and regulations.
 - (f) The permittee shall obtain any required state or federal permit necessary to complete maintenance activities.
- 2) For SWM facilities not maintained by the permittee and that discharge into the MS4, the following conditions apply:
- (a) The permittee shall continue to implement a program to ensure proper maintenance of each privately maintained SWM facility that discharges into the MS4 system as documented in the MS4 Program Plan.
 - (1) Beginning with the effective date of this state permit, maintenance agreements may be used but are not required for stormwater control measures that are designed to treat stormwater runoff solely from the individual residential lot on which they are located provided that the permittee has developed and implemented a strategy to address maintenance of such stormwater management controls. Should the permittee choose a strategy other than a maintenance agreement, such a strategy shall be provided in writing no later than 12 months after the effective date of this state permit and shall include periodic inspections, homeowner outreach and education, or other methods targeted at promoting the long term maintenance of such facilities.
 - (2) For SWM facilities that are privately maintained and for which maintenance agreements have been established between the permittee and the owner, the permittee shall:
 - (i) Inspect privately maintained SWM facility no later than three years after certification of proper design is submitted to the permittee.
 - (ii) Inspect all privately maintained facilities no less than one time during the term of this state permit; and,
 - (iii) Conduct follow-up inspections to ensure that required maintenance has been completed.
 - (3) For SWM facilities that are privately maintained and for which maintenance agreements have been not established between the permittee and the owner, the permittee shall implement a pilot program consisting of the following:
 - (i) No later than 12-months after the effective date of the permit, the permittee shall develop draft procedures and policies that are designed to ensure that inspection

and maintenance of privately maintained SWM facilities are being conducted. The draft procedures and policies should identify any expected limitations to the permittee's ability to implement these procedures and policies and should propose options to overcome these limitations;

- (ii) No later than 15-months after the effective date of the permit, the permittee shall implement these draft procedures and policies including the proposed options identified in subsection Part I.B.2.i)2)a)(3)(i) above; and,
 - (iii) No later than 36-months after the effective date of the permit, the permittee shall modify the draft policy and procedures required by Part I.B.2.i)2)a)(3)(i) for the inspection of privately maintained SWM facilities based on the findings of Part I.B.2.i)2)a)(3)(ii) and finalize the inspection procedures.
- 3) No later than 18 months after the effective date of this permit, the permittee shall map the MS4 service area and each MS4 outfall. The following information shall be tracked for each MS4 outfall:
 - (a) An individual identification number, local watershed, HUC 6 and receiving water;
 - (b) The latitude and longitude in degrees, minutes and seconds;
 - (c) New outfalls shall be tracked upon their inclusion into the MS4.
- 4) No later than 24 months after the effective date of this state permit, the permittee shall identify the following for each local watershed, sixth order HUC and Chesapeake Bay Segment:
 - (a) The number of impervious, pervious and total acres served by the MS4 as of June 30, 2009.
 - (b) The number of impervious, pervious and total acres treated by stormwater controls as of June 30, 2009,
- 5) No later than 54 months after the effective of this state permit, the permittee shall update each of the following:
 - (a) The number of impervious, pervious and total acres served by the MS4 for each Chesterfield County local watershed, sixth order HUC and Chesapeake Bay segment.
 - (b) The number of impervious, pervious and total acres treated by stormwater controls.

SPECIFIC REPORTING REQUIREMENTS:

- **The permittee shall submit with the initial annual report the written inspection and maintenance procedures.**
- **Each annual report shall include a progress report on efforts to repair failed storm sewer outfalls.**
- **Each annual report shall include a list of activities including inspections, maintenance, and repair of stormwater infrastructure operated by the permittee as required in Part I.B.2.i)1), including the number of catch basins inspected and maintained; the linear feet of storm sewer system and easement owned and/or operated by the permittee, and the linear feet of storm sewer system and easement inspected.**
- **Each annual report shall provide a summary of actions taken by the permittee to address failure of privately maintained SWM facilities owners to abide by maintenance agreements.**

- Each annual report shall include a list of activities including inspections performed and notifications of needed maintenance and repair of stormwater infrastructure not operated by the permittee as required by Part I.B.2.i)2).
 - The MS4 service area map including outfalls and information included in Part I.B.2.i)3) shall be submitted no later than 18 months after the effective date of this state permit. The information shall be submitted in a format specified by the Department.
 - The second annual report submitted under this state permit shall include the information included in Part I.B.2.i)4). The information shall be submitted in a format specified by the Department.
 - The fourth annual report shall include an updated list of all information requested in Part 1.B.2.i)5).
- j) **County Facilities** County facilities shall be operated and maintained as follows:
- 1) Good Housekeeping
 - (a) The discharge of county vehicle wash water into the MS4 at county facilities without authorization from a separate VPDES permit shall be prohibited.
 - (b) The discharge of wastewater into the MS4 at county facilities without authorization by a separate VPDES permit shall be prohibited.
 - (c) The dumping of collected yard waste and grass clippings into the MS4 shall be prohibited.
 - (d) Fluids leaked from municipal vehicles shall be prevented from entering the storm sewer system. Leaked fluids shall be cleaned up and disposed of properly, as soon as possible but no later than 24-hours after discovery.
 - (e) No later than 54-months after the effective date of this state permit, the permittee shall install and maintain markings on all stormwater inlets located on high priority municipal facilities, as defined at Part I.F, and on County properties with greater than 2-acres of impervious surface.
 - 2) High Priority Municipal Facilities
 - (a) The permittee shall identify all additional high priority municipal facilities that do not require a separate VPDES industrial stormwater permit no later than 12-months after the effective date of this state permit;
 - (b) The permittee shall develop and/or update and maintain individual stormwater pollution prevention plans for each high-priority municipal facility identified under Part I.B.2.i)2)(a) no later than 36-months after the effective date of this state permit. Stormwater pollution prevention plans (SWPPP) shall include:
 - (1) A site description that includes a site map identifying all outfalls, direction of flows, existing source controls and receiving water bodies;
 - (2) A discussion and checklist of potential pollutants and pollutant sources;
 - (3) A discussion of all potential non-stormwater discharges;

- (4) A maintenance schedule for all existing source controls;
 - (5) All policies and procedures implemented at the facility to ensure source reduction;
 - (6) An inspection schedule and checklist to ensure that all source reductions are continually implemented and all source controls are appropriately maintained. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP;
 - (7) Appropriate training as required in Part I.B.2.I;
 - (8) Procedures to conduct an annual comprehensive site compliance evaluation;
 - (9) Procedures to conduct annual outfall field screening; and
 - (10) All modifications made as the result of any release or spill.
- (c) A copy of each SWPPP shall be kept at each high-priority municipal facility and be kept updated.

SPECIFIC REPORTING REQUIREMENTS:

- **The Initial annual report shall include a list of all high priority municipal facilities.**

- k) ***Public Education/Participation*** The permittee shall implement a public education program with the goal of increasing the stormwater knowledge of target audiences and changing behavior to result in pollutant reductions. The permittee may fulfill all or part of the requirements of this state permit through regional outreach programs involving two or more MS4 localities.
- 1) The permittee shall identify, schedule, implement, evaluate and modify, as necessary, public outreach activities designed to meet the following public education and outreach measurable goals:
 - (a) Promote, publicize, and facilitate public reporting of the presence of illicit discharges or improper disposal of materials into the MS4;
 - (b) Continue to promote individual and group involvement in local water quality improvement initiatives including the promotion of local restoration and clean-up projects, programs, groups, meetings and other opportunities for public involvement;
 - (c) Develop an outreach program with public and private courses golf courses located within the county that discharge to the permittee's MS4 that would implement integrated management practice (IMP) plans and techniques to reduce runoff of fertilizer and pesticides;
 - (d) Promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes;
 - (e) Promote and publicize the proper disposal of pet waste and household yard waste;
 - (f) Promote and publicize the use of the county's litter prevention program;
 - (g) Promote and publicize methods for residential car washing that minimize water quality

impacts;

- (h) Promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors;
 - (i) Encourage private property owners to implement voluntary stormwater management techniques and/or retrofits i); and
 - (j) Target strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.
- 2) The permittee shall post a copy of this state permit on its web page no later than 30-days after the effective date of this state permit and continue to retain a copy of the permit on-line for the duration of this state permit.
 - 3) The permittee shall post copies of each annual report on its website no later than 30 days after the report submittal to the Department and continue to retain copies of the annual reports on-line for the duration of this state permit.
 - 4) The permittee shall make available for public review the most current MS4 Program Plan upon request of interested parties in compliance with all applicable open records requirements.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall include a list of permittee public outreach and education activities and the estimated number of individuals reached through the activities. An evaluation of program effectiveness, as outlined in the MS4 Program Plan with recommendations for future changes shall also be included.
 - Each annual report shall provide a summary of voluntary retrofits completed on private property used to demonstrate pollutant reduction requirements. Note that any voluntary project for which the permittee seeks to use for pollutant reduction requirements must be tracked and reported.
 - Each annual report shall provide a summary of voluntary storm water management techniques encourage on private property.
- l) **Training** The permittee shall conduct stormwater training for county employees. The training requirement may be fulfilled all or in part through regional training programs involving two or more MS4 localities; provided, however, that the permittee shall remain individually liable for its failure to comply with the training requirements in this state permit. The permittee shall determine the appropriate employees to receive the following types of training based on the specific topic for which training is to be provided:
- 1) The permittee shall provide biennial training to appropriate field personnel in the recognition and reporting of illicit discharges.
 - 2) The permittee shall provide biennial training to appropriate employees in good housekeeping and pollution prevention practices that are to be employed during road, street, and parking lot maintenance.
 - 3) The permittee shall provide biennial training to appropriate employees in good housekeeping and pollution prevention practices that are to be employed in and around county maintenance and public works facilities.

- 4) The permittee shall ensure that employees, and require that contractors, who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control Act (§3.1-3900 et seq. of the Code of Virginia). The requirements of the Virginia Pesticide Control Act are established by the Virginia Pesticide Control Board.
- 5) The permittee shall ensure that County plan reviewers, inspectors, program administrators and construction site operators (e.g. responsible land disturber) are trained and obtain the appropriate certifications to the extent required under the Virginia Erosion and Sediment Control Law and attendant regulations.
- 6) The permittee shall ensure that the applicable County employees obtain the appropriate certifications as required under the Virginia Erosion and Sediment control Law and its attendant regulations to implement the modified stormwater management design criteria.
- 7) The permittee shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around county recreation facilities.
- 8) The appropriate emergency response employees shall have training in spill response. A summary of the training or certification program provided to emergency response employees shall be included in the first annual report.
- 9) Documentation shall be kept of all training events including the training date, number of employees attending the training, and the objective of the training event for a period of three years after each training event. Additionally, all events shall be listed in the annual report for the year in which the training event occurred.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall include a list of training events, the date and the estimated number of individuals attending each event.
 - The initial report shall include documentation of employee emergency spill response training/certification.
- m) **Water Quality Screening Programs** The following screening programs shall be implemented in addition to the monitoring required by Part I.C:
- 1) **Dry Weather Screening Program:** The permittee shall continue ongoing efforts to detect the presence of illicit connections and unauthorized discharges to the MS4.
 - (a) The permittee shall continue to implement a program of dry weather screening in areas of concern including but not limited to: commercial car washes, car dealerships, pet kennels, restaurants, areas with a history of complaints, and areas upstream of sensitive ecosystems. The permittee shall screen at a minimum, 500 of the County's MS4 outfalls within the permit cycle.
 - (b) Criteria for selection of outfalls to be screened as required by Part I.B.2.m)1)(a) above shall include but is not limited to the following:
 - (1) List of sites requiring further investigation, as identified previously;
 - (2) Age and density of development with the likelihood of illicit connections such as older residential, commercial and industrial areas;
 - (3) Outfalls representing the general land uses of the County;

- (4) Poorly maintained gas stations, service stations, and shopping centers;
 - (5) Presence of environmentally sensitive features downstream; and
 - (6) History of complaints received on illicit discharges.
- 2) **Wet Weather Screening Program:** In addition to the Watershed Monitoring required in Part I.C., the permittee shall continue to investigate, and address areas within their jurisdiction that are suspected to be contributing excessive levels of pollutants to the MS4. No later than 12 months after the effective date of this permit, the permittee shall develop written procedures for the wet weather screening program which shall include the sampling and non-sampling techniques to be used for initial screening and follow-up purposes. The written procedures shall be incorporated as part of the MS4 Program Plan.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall include a list of locations upon which dry weather screening was conducted, the results and any follow-up actions including maintenance and/or repair of infrastructure or outfalls performed as a result of the dry weather screening.
 - No later than 12 months after the effective date of the state permit, the permittee shall submit to the Department the written procedures for wet weather monitoring.
 - Each annual report shall include a list of locations upon which wet weather screening was conducted, the results, weather conditions at the time sample was collected to include date and approximate time of most recent storm event preceding sample collection, long term trends analyses, and any follow-up actions including maintenance and/or repair of infrastructure or outfalls performed as a result of the wet weather screening.
- n) **Infrastructure Coordination** – The permittee shall coordinate with the Virginia Department of Transportation (VDOT) regarding issues of MS4 physical-interconnectivity as described below:
- (1) Annual Coordination Meeting – The permittee shall meet annually with VDOT for purposes of overall coordination on priority issues for the permittee's MS4 program plan (including operations and maintenance elements) and TMDL action planning relevant to the interconnectivity of the MS4s;
 - (2) Mapping – The permittee shall inform VDOT of the status of its mapping program, identifying any uncertainty regarding ownership or actual location of MS4 components associated with the physically-interconnected MS4s, and working to resolve such uncertainty. The permittee shall coordinate with VDOT to identify any areas within the permittee's municipal boundaries that drain to the VDOT MS4;
 - (3) Chesapeake Bay TMDL Action Plans – The permittee shall inform VDOT of the means, methods, and schedule by which the permittee will implement the reductions required by the Chesapeake Bay TMDL Special Condition (Part I.D.1) when those means and methods may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of best management practices (BMPs) may be accelerated or otherwise improved by mutual cooperation;

The permittee shall coordinate with VDOT to identify any areas within the permittee's municipal boundaries that drain to the VDOT MS4 and are unaccounted for in the Chesapeake Bay TMDL Action Plan developed by VDOT or the permittee. The unaccounted areas shall be quantified (acres) in the Chesapeake Bay TMDL Action Plan submitted by the permittee.

- (4) Other TMDL Action Plans – The permittee shall inform VDOT of TMDL Action Plans and major milestones implemented for other (i.e., non-Chesapeake Bay) TMDLs when those plans may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of BMPs may be accelerated or improved by mutual cooperation;
- (5) Credit for TMDL Implementation – Permit specific BMP retrofit requirements shall not be double-counted in the calculation of load reductions. If the permittee undertakes the project, the permittee shall be entitled to full credit for the project, but may share credit with VDOT on mutually agreeable terms, which shall be in writing;
- (6) Illicit Discharge Detection & Elimination – The permittee shall continue to be responsible for implementing a program for illicit discharge detection and elimination, including dry weather field screening, for the permittee's portion of the physically-interconnected MS4. As part of the annual coordination meeting, described in item (1) above, the permittee shall coordinate with VDOT on the identification of high risk industrial facilities. The permittee shall establish procedures for notifying VDOT when an illicit discharge is identified in the VDOT MS4;
- (7) Water Quality Monitoring – The permittee shall conduct water quality monitoring as required by Part I.B.2.m) and Part I.C of this state permit. The permittee shall make available to VDOT all monitoring data collected from areas where the physically-interconnected MS4 discharges to the VDOT MS4 or received flow from the VDOT MS4. The permittee and VDOT are encouraged to cooperate with one another to establish a joint monitoring network; and,
- (8) Annual Reports – As part of its Annual Report, the permittee shall document coordination efforts with VDOT that occurred during the reporting year pursuant to requirements (1) through (8) above.

C. MONITORING REQUIREMENTS

1. Biological Stream Monitoring

The permittee shall continue to implement a biological stream monitoring program to evaluate the condition of select stream sites within the county as follows:

- a) Five (5) stream sites within the county shall be selected for monitoring during the term of this permit.
- b) Monitoring shall be conducted twice per year at each selected stream site.
- c) The permittee shall use a biological stream monitoring approach based on the "USEPA's Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers" and shall include an assessment of the benthic macroinvertebrate community and habitat assessment.

SPECIFIC REPORTING REQUIREMENTS:

- The initial annual report shall include the list of sites to be monitored during the term of the state permit and monitoring protocols.
- Each annual report shall include a summary of the monitoring results and analyses and an interpretation of that data with respect to long-term patterns/trends.

2. InStream Monitoring

The permittee shall continue to implement an instream monitoring program to evaluate the condition of select streams within the county as follows:

- a) Five (5) stream sites within the county shall be selected for monitoring during the term of this permit.
- b) Monitoring shall be conducted once per two months between January 1st and December 31st at each monitoring location.
- c) Monitoring shall be performed for the following parameters:
 - 1) pH
 - 2) Dissolved Oxygen
 - 3) Temperature
 - 4) Total Suspended Solids
 - 5) Ammonia as Nitrogen
 - 6) Nitrate plus Nitrite Nitrogen
 - 7) Total Kjeldahl Nitrogen
 - 8) Total Nitrogen (calculated)
 - 9) Dissolved Phosphorus
 - 10) Total Phosphorus
 - 11) *Escherichia Coli*
- d) Monitoring for the parameters listed in Part I.C.2.c) shall be in accordance with **Part II.A. of this state permit.**
- e) The permittee may replace a sampling location with a new proposed location after 15 samples are collected and analyzed. Written notification of the monitoring plan revisions shall be given to the Department in writing and shall include a statistical analysis of the monitoring results, conclusions regarding the data, the proposed new monitoring location, and the reasoning for site location choice.

SPECIFIC REPORTING REQUIREMENTS:

- **The initial annual report shall include the list of sites to be monitored during the term of the state permit and monitoring protocols.**
 - **Each annual report shall include a summary of the monitoring results and analyses and an interpretation of that data with respect to long-term patterns/trends.**
3. **Floatables and Settleable Solids Monitoring**
- No later than 24 months after the effective date of the permit, the permittee shall develop and implement a floatable and settleable solids monitoring program. The intent of the monitoring program is to determine the loading of floatable and settleable solids from the MS4 to streams within the county. The permittee will implement the floatable and settleable solids monitoring program as follows:
- a) Monitoring shall be conducted at five (5) monitoring sites located at MS4 outfalls and/or streams receiving discharges from the MS4.
 - b) Monitoring shall be conducted once per quarterly after program implementation.
 - c) The monitoring program shall include the count of floatable and settleable solids visually observed and length or area of sites assessed.

SPECIFIC REPORTING REQUIREMENTS:

- The initial annual report shall include an update on the development of the floatable and settleable solids monitoring program.
- The second annual report shall include the monitoring protocols for the floatable and settleable solids monitoring program.
- Each following annual report shall include a list of sites monitored, a summary of the monitoring protocols used, and a summary of the monitoring results and analyses.

4. **Structural and Source Controls Compliance Monitoring and Tracking**

- a) The permittee shall maintain an updated electronic database of all known County and privately maintained stormwater management (SWM) facilities. The database shall include the following:
- 1) The SWM facility type, address, and latitude, and longitude (in degree, minutes, and seconds);
 - 2) The total pervious and impervious acres treated;
 - 3) The date brought on line (MMYYYY). If the date is unknown, the permittee shall use June 2005 as the date brought on line for all previously existing SWM facilities;
 - 4) The hydrologic unit code (HUC 6) in which the SWM facility is located;
 - 5) The name of any impaired water segments within each HUC listed on the most recent 305(b)/303(d) Water Quality Assessment Integrated Report to which the SWM facility discharges;
 - 6) Whether the SWM facility is county or privately maintained;
 - 7) Whether the SWM facility discharges into the MS4;
 - 8) Whether a maintenance agreement exists if the SWM is privately maintained; and
 - 9) The date of last inspection by county authorities.

An electronic database or spreadsheet of all known SWM facilities brought on line during each reporting year shall be submitted with the appropriate annual report in a format specified by the Department.

No later than 36-months of the effective date of this state permit, the list shall be updated to include the required information for SWM facilities known to exist prior to the effective date of this state permit. The updated information shall be submitted with the fourth annual report.

- b) Facilities that solely provide peak flow control as required by the Chesterfield County Code are excluded from the requirements of this section. Inspection and maintenance requirements for these facilities shall be in accordance with all applicable state and local ordinances, regulations, and statutes.

SPECIFIC REPORTING REQUIREMENTS:

- Each annual report shall include a copy of the updated database in electronic format.
- Each annual report shall include a summary of the program to ensure maintenance of private stormwater management facilities.
- Each annual report shall include a summary of the program to ensure maintenance of stormwater

management facilities maintained by the permittee.

- The third annual report submitted under this permit shall include an updated list of stormwater management facilities existing prior to issuance of this permit.

D. TMDL ACTION PLAN AND IMPLEMENTATION

1. Chesapeake Bay Special Condition

The Commonwealth in its Phase I and Phase II Chesapeake Bay TMDL Watershed Implementation Plans (WIP) committed to a phased approach for MS4s permittees to implement necessary reductions. This state permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of 5% of L2 as specified in the 2010 Phase I WIP. Conditions of future permits will be consistent with the TMDL or WIP conditions in place at the time of permit issuance.

a) Definitions

The following definitions apply to this state permit for the purpose of the Special Condition for Discharges in the Chesapeake Bay Watershed:

- 1) "Existing Sources" means pervious and impervious urban land uses served by the MS4 as of June 30, 2009.
- 2) "New Sources" means pervious and impervious urban land uses served by the MS4 developed or redeveloped on or after July 1, 2009.
- 3) "Transitional Sources" means regulated land disturbing activities which are temporary in nature and discharge through the MS4.
- 4) "Pollutants of concern" or "POC" means total nitrogen, total phosphorus and total suspended solids.

b) Chesapeake Bay Watershed TMDL Planning

- 1) No later than 24-months after the effective date of this state permit, the permittee shall develop and submit to the Department for its review and acceptance an approvable phased Chesapeake Bay TMDL Action Plan that includes:
 - (a) A review of the current MS4 program including existing legal authorities and the permittee's ability ensure compliance with this special condition;
 - (b) Identifies any new or modified legal authorities, such as ordinances, permits, orders, contracts and inter-jurisdictional agreements, implemented to meet the requirements of this special condition;
 - (c) The means and methods utilized to address discharges into the MS4 from new sources.
 - (d) An estimate of the annual POC loads discharged from the existing sources as of June 30, 2009 based on the 2009 progress run. The permittee shall utilize Table 1 and multiply the total existing acres served by the MS4 on June 30, 2009 and the 2009 Edge of Stream (EOS) Loading Rate.

Table 1: Calculation Sheet for Estimating Existing Source Loads for the James River Basin
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(Based on Chesapeake Bay Program Watershed Model Phase 5.3.2)				
<u>Subsource</u>	<u>Pollutant</u>	<u>Total Existing Acres Served by MS4 (6/30/09)</u>	<u>2009 EOS Loading Rate (lbs/ac/yr)</u>	<u>Estimated Total POC Load Based on 2009 Progress Run (lb/yr)</u>
Regulated Urban Impervious	Nitrogen		9.39	
Regulated Urban Pervious			6.99	
Regulated Urban Impervious	Phosphorus		1.76	
Regulated Urban Pervious			0.5	
Regulated Urban Impervious	Total Suspended Solids		676.94	
Regulated Urban Pervious			101.08	

- (e) A determination of the total pollutant load reductions necessary to reduce the annual POC existing loads using Table 2 by multiplying the total existing acres served by the total reduction required during the first permit cycle.

Table 2: Calculation Sheet for Determining Total POC Reductions Required During this State Permit Cycle for the James River Basin				
(Based on Chesapeake Bay Program Watershed Model Phase 5.3.2)				
<u>Subsource</u>	<u>Pollutant</u>	<u>Total Existing Acres Served by MS4 (6/30/09)</u>	<u>First Permit Cycle Requiring Reduction in Loading Rate (lbs/ac/yr)</u>	<u>Total Reduction Required During First Permit Cycle (lbs/yr)</u>
Regulated Urban Impervious	Nitrogen		0.04	
Regulated Urban Pervious			0.02	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		6.67	
Regulated Urban Pervious			0.44	

- (f) The means and methods, such as the management practices and retrofit programs that will be utilized to meet the required reductions identified in Part I.D.1.b)(1)(e) and a schedule to achieve those reductions. The schedule should include annual benchmarks to demonstrate the on-going progress in meeting the reductions. The means and methods implemented prior to July 1, 2009 shall not be credited towards meeting the required reductions identified in Part 1.D.1.b.1)(e).
- (g) The means and methods to offset the increased loads from new sources initiating construction between July 1, 2009 and June 30, 2014 that disturb greater than one acre as a result of the utilization of an average land cover condition greater than 16% impervious cover for the design of post development stormwater management facilities. The permittee shall utilize Table 3 to develop the equivalent pollutant load for nitrogen and total suspended solids. The permittee

shall offset 5% of the calculated increased load from these new sources during the permit cycle.

- (h) The means and methods to offset the increase loads from grandfathered projects in accordance with 9VAC25-870-48, that disturb greater than one acre that being constructed after July 1, 2014 where the project utilized an average land cover condition greater than 16% impervious cover in the design of post development stormwater management facilities. The permittee shall utilize Table 3 to develop the equivalent pollutant load for nitrogen and total suspended solids.

Table 3: Ratio of Phosphorus Loading Rate to Nitrogen and Total Suspended Solids Loading Rates for Chesapeake Bay Basins (Based on Chesapeake Bay Program Watershed Model Phase 5.3.2)			
<u>Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)</u>	<u>Phosphorus Loading Rate (lbs/ac/yr)</u>	<u>Nitrogen Loading Rate (lbs/ac/yr)</u>	<u>Total Suspended Solids Loading Rate (lbs/ac/yr)</u>
James River Basin	1.0	5.2	420.9

- (i) A list of future projects and associated acreage that qualify as grandfathered in accordance with 9VAC25-870-48.
- (j) An estimate of the expected cost to implement the necessary reductions during the permit cycle;
- (k) An opportunity for receipt and consideration of public comment on the draft Chesapeake Bay TMDL Action Plan; and,
- (l) A list of all comments received as a result of public comment and any modifications made to the draft Chesapeake Bay Action Plan as a result of the public comments.
- 2) As part of development of the Chesapeake Bay TMDL Action Plan, the permittee shall consider use of the following:
- (a) Implementation of BMPs on unregulated lands provided the baseline reduction is subtracted from the total reduction prior to application of the reduction towards meeting the required reductions.
- (b) Utilization of stream restoration projects provided the baseline reduction from the unregulated acreage treated by the stream restoration project is subtracted from the total reduction prior to application of the reduction towards meeting the required reductions.
- (c) Establishment of a memorandum of understanding (MOU) with other MS4 permittees that discharge to the same or adjacent eight digit hydrologic unit within the same basin to implement BMPs collectively. The MOU shall include a mechanism for dividing the POC reductions created by BMP implementation between the cooperative MS4s.
- (d) Utilization of any pollutant trading or offset program in accordance with §62.1-44.15.50 et seq. of the Code of Virginia governing trading and offsetting.
- (e) A more stringent average land cover condition based on less than 16% impervious cover for new sources initiating construction between July 1, 2009, and June 30, 2014, and all grandfathered projects where allowed by law; and
- (f) Any BMPs installed after June 30, 2009, as part of a retrofit program may be applied towards meeting the required load reductions provided any necessary baseline reductions are not

included.

- 3) The permittee shall address any modification to the TMDL or watershed implementation plan that occurs during the term of this state permit as part of its permit reapplication as required in Part II.M of this state permit.
- 4) The Chesapeake Bay TMDL Action Plan shall become effective and enforceable upon written approval from the Department.

c) Chesapeake Bay TMDL Action Plan Implementation

- 1) The permittee shall implement the TMDL action required in Part I.D.1.b)1) of this state permit according to the schedule therein. Compliance with this requirement represents adequate progress for this state permit term towards achieving TMDL wasteload allocations consistent with the assumptions and requirements of the TMDL and shall be included in annual reports subsequent to the submission of the Chesapeake Bay Action Plan.
- 2) For the purposes of this state permit, the implementation of the following represents implementation to the maximum extent practicable and demonstrates adequate progress:
 - (a) Implementation of turf and landscape nutrient management plans in accordance Part I.B.2.e);
 - (b) Implementation of Part I.B.2.a) in accordance with this state permit shall address discharges from transitional sources;
 - (c) Implementation of the means and methods to address discharges from new sources in accordance with Part I.B.2.b) and in order to offset 5% of the total increase in POC loads between July 1, 2009 and June 30, 2014. Increases in the POC load from grandfathered projects initiating construction after July 1, 2014 must be offset prior to completion of the project; and,
 - (d) Implementation of means and methods sufficient to meet 5% required reductions of POC loads from existing sources defined in this state permit in accordance with the Chesapeake Bay TMDL Watershed Implementation Plan.

d) Annual Reporting Requirements

- 1) In accordance with Part I.D.1.b)1), the permittee shall submit the Chesapeake Bay TMDL Action Plan.
- 2) Each subsequent annual report shall included a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for total nitrogen, phosphorus, and total suspended soils.
- 3) Each subsequent annual report shall include a list of control measures that were implemented during the reporting cycle and the estimated reduction achieved by the control. For stormwater management controls, the report shall include the information required in Part I.C.5.a) and shall include whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.
- 4) Each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for total nitrogen, total phosphorus, and total suspended solids.
- 5) The permittee shall include the following as part of its reapplication package due in accordance with

Part II.M:

- (a) Documentation that sufficient control measures have been implemented (or documentation detailing that implementation will be complete by the expiration date of this state permit) to meet the compliance target identified in this Special Condition. If temporary credits or offsets have been purchased in order to meet the compliance target, the list of temporary reductions utilized to meet the 5% reduction in this state permit and a schedule of implementation to ensure a permanent 5% reduction shall be provided; and
- (b) A draft second phase Chesapeake Bay TMDL Action Plan designed to reduce the existing pollutant of concern loads by an additional seven times the required reductions in loading rates using Table 2 of Part I.D.1.b) of this state permit unless alternative calculations have been provided by the Commonwealth;
- (c) An additional 35% reduction in new sources developed between 2009 and 2014 and for which the land use cover condition was greater than 16%; and
- (d) Accounting for any modification to the applicable loading rate provided to the permittee as a result of TMDL modification.

2. TMDL Action Plans other than the Chesapeake Bay TMDL

a) TMDL Action Plan Development

The permittee shall maintain an updated MS4 Program Plan that includes TMDL Action Plans for pollutants in which wasteloads have been allocated to the MS4 in approved TMDLs. Approved TMDLs as of the effective date of this state permit are included in Attachment A of this state permit. TMDL Action Plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is made to reduce pollutant discharges in a manner that is consistent with the assumptions and requirements of the applicable TMDL. Progress shall be demonstrated by representative and adequate monitoring or other methods (e.g. modeling) as described in Part I.D.2.b)5) below. These TMDL Actions Plans shall identify the best management practices and other interim milestone activities to be implemented during the remaining term of this state permit. The plan shall include an estimated end date for achieving the applicable wasteload allocations and, for planning purposes, a projection of BMPs and other implementation steps expected to address the WLA, outside of the permit term, as applicable.

- 1) No later than 24 months after the effective date of this state permit, the permittee shall submit to the Department TMDL Action Plans to address any new or modified requirements established under this Special Condition for pollutants identified in TMDL wasteload allocations approved prior to the effective date of this state permit.
- 2) The TMDL Action Plans shall become effective and enforceable upon written notification from the Department.
- 3) The TMDL Action Plans shall be incorporated by reference into this state permit.

b) TMDL Action Plan content

The permittee shall:

- 1) Develop and maintain a list of its legal authorities such as ordinances, permits, order, specific contract language, and inter-jurisdictional agreements applicable to reducing the pollutant identified in a WLA;
- 2) Identify and maintain an updated list of all additional management practices, control techniques and

system design and engineering methods, beyond those identified in Part I.B of this state permit, that have been implemented as part of the MS4 Program Plan that are applicable to reducing the pollutant identified in the WLA;

- 3) Enhance the public education and outreach and employee training programs to also promote methods to eliminate and reduce discharges of the pollutants identified in the WLA;
 - 4) Assess all significant sources of pollutant(s) from facilities of concern owned or operated by the MS4 operator that are not covered under a separate VPDES industrial stormwater permit and identify all municipal facilities that may be a significant source of the identified pollutant. For the purpose of this assessment, a significant source of pollutant(s) from a facility of concern means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL. (For example, a significant source of pollutant from a facility of concern for a bacterial TMDL would be expected to be greater at a dog park than at other recreational facilities where dogs are prohibited);
 - 5) Develop and implemented a method to assess TMDL Action Plans for their effectiveness in reducing the pollutants identified in the WLAs. The evaluation shall use any newly available information, representative and adequate water quality monitoring results, or modeling tools to estimate pollutant reductions for the pollutant(s) of concern from implementation of the MS4 Program Plan. Monitoring may include BMP, outfall, or in-stream monitoring, as appropriate, to estimate pollutant reductions. The permittee may conduct monitoring, utilize existing data, establish partnerships, or collaborate with other MS4 permittees or other third parties, as appropriate. This evaluation shall include assessment of the facilities identified in Part I.D.2.b)4) above. The methodology used for assessment shall be described in the TMDL Action Plan.
- c) This state permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the treatment works that are not consistent with the permit requirements.
3. Analytical methods for any monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the Environmental Protection Agency (EPA). Where an approved 40 CFR Part 136 method does not exist, the permittee shall use a method consistent with the TMDL.
 4. The permittee is encouraged to participate as a stakeholder in the development of any TMDL implementation plans applicable to their discharge. The permittee may incorporate applicable best management practices identified in the TMDL implementation plan in the MS4 Program Plan or may choose to implement BMPs of equivalent design and efficiency provided that the rationale for any substituted BMP is provided and the efficiency provided that the rationale for any substituted BMP is provided and the substituted BMP is consistent with the assumptions and requirements of the TMDL WLA.
 5. Annual Reporting Requirements.
 - a) The permittee shall submit the required TMDL Action Plans to the Department for review and acceptance with the appropriate annual report associated schedule identified in this permit.
 - b) The permittee shall report on the implementation of the TMDL Action Plans and associated evaluation including the results of any monitoring conducted as part of the evaluation.
 6. The permittee shall identify the best management practices and other steps that will be implemented during the next permit term as part of the permittee's reapplication for coverage as required under Part II.M. The permittee shall also evaluate and modify the estimated end date for achieving the applicable wasteload based on information acquired during the permit cycle.

E. Annual Reporting

The permittee shall submit the annual report to the Department of Environmental Quality, no later than October 1st of each year. The report shall cover the previous fiscal year from July 1st to June 30th and include the following separate sections:

1. Background Information
 - a) The permittee and permit number of the program submitting the annual report;
 - b) Any modifications to the MS4 Program Plan as a result of the annual report;
 - c) The reporting dates for which the annual report is being submitted; and,
 - d) Certification as per Part II.K.
2. A summary of the implementation of each of the components established under Part I.B. and an evaluation of the effectiveness of each component. The permittee should attempt to limit any component's narrative summary to no longer than two-pages plus any necessary tables and figures.
3. A summary report of the monitoring programs listed under Part I.C.
4. A summary of the implementation of each component listed under Part I.D.
5. The Specific Reporting Requirements identified in this state permit.

F. Definitions

Definitions contained in the Virginia Stormwater Management Act, Part I (9VAC25-870-10) and Federal NPDES rules, 40 CFR Part 122, apply where a definition is not specified below. Unless otherwise specified in this state permit, additional definitions or words or phrases used in this state permit are as follows:

1. "Best management practice" or "BMP" means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.
2. "Board" means the State Water Control Board.
3. "Date brought on line" means the date when the permittee determines that a new stormwater management facility is properly functioning to meet its designed pollutant load reduction.
4. "DEQ" means the Department of Environmental Quality.
5. "High priority municipal facility" means any facility owned and operated by the permittee or regulated under this state permit that performs fleet maintenance; recycling activities, outdoor equipment and machinery storage; or the unloading, loading or storage of erodible, floatable or soluble materials or chemicals without protection from exposure to precipitation.
6. "Industrial land use" means land utilized in connection with manufacturing, processing, or raw materials storage at facilities identified under 40 CFR Part 122.26(b)(14).
7. "Maintenance" means maintenance on the MS4 and associated structural stormwater controls including, but not limited to, activities such as inspections of basins and ponds; repair and replacement of failed controls,

mowing grass filter strips; regular removal of litter and debris from dry ponds, forebays and water quality inlets; periodic stabilization and revegetation of eroded areas; periodic removal and replacement of filter media from infiltration trenches and filtration ponds; periodic removal of trash and sediment; deep tilling of infiltration basins to maintain capacity; vacuuming or jet hosing of porous pavement or concrete grid pavements; and, removal of litter and debris from wet weather conveyances.

8. "Permittee" means Chesterfield County.
9. "Physically interconnected" means that one MS4 is connected to a second MS4 in such a manner that it allows for direct discharges to the second system.
10. "Retrofit" means the modification of existing stormwater management facilities, as defined herein, including flood control structures, through construction and/or enhancement in order to address water quality improvements. Retrofit also means the installation or implementation of source reductions to provide water quality improvements on previously developed land where no stormwater source reductions previously existed.

PART II-CONDITIONS APPLICABLE TO ALL VSMP MS4 PERMITS

A. MONITORING

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this state permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.
4. Samples taken as required by this state permit shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

B. RECORDS

1. Monitoring records/reports shall include:
 - a) The date, exact place, and time of sampling or measurements;
 - b) The individual(s) who performed the sampling or measurements;
 - c) The date(s) and time(s) analyses were performed;
 - d) The individual(s) who performed the analyses;
 - e) The analytical techniques or methods used; and
 - f) The results of such analyses.
2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation; copies of all reports required by this state permit; and records of all data used to complete the registration statement for this

state permit, for a period of at least 3 years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. REPORTING MONITORING RESULTS

1. The permittee shall submit the results of the monitoring required by this state permit with the annual report unless another reporting schedule is specified elsewhere in this state permit.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department; or in any format provided that the date, location, parameter, method, and result of the monitoring activity are included.
3. If the permittee monitors any pollutant specifically addressed by this state permit more frequently than required by this state permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this state permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
4. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this state permit.

D. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Department, within a reasonable time, any information that the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this state permit or to determine compliance with this state permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from its discharge on the quality of surface waters, or such other information as may be necessary to accomplish the purposes of the Clean Water Act and Virginia Stormwater Management Act. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this state permit.

E. COMPLIANCE SCHEDULE REPORTS

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this state permit shall be submitted no later than 14 days following each schedule date.

F. UNAUTHORIZED STORMWATER DISCHARGES

Pursuant to § 62.1-44.15:26 of the Code of Virginia, except in compliance with a permit issued by the board, it shall be unlawful to cause a stormwater discharge from a MS4.

G. REPORTS OF UNAUTHORIZED DISCHARGES

Any operator of a regulated MS4 who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117 or 40 CFR Part 302 that occurs during a 24-hour period into or upon surface waters; or who discharges or causes or allows a discharge that may reasonably be expected to enter surface waters, shall notify the Department of Environmental Quality of the discharge immediately upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department of Environmental Quality, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this state permit.

Discharges reportable to the Department of Environmental Quality under the immediate reporting requirements of other regulations are exempted from this requirement.

H. REPORTS OF UNUSUAL OR EXTRAORDINARY DISCHARGES

If any unusual or extraordinary discharge including "bypass" or "upset", as defined herein, should occur from a facility and the discharge enters or could be expected to enter surface waters, the permittee shall promptly notify, in no case later than 24 hours, the Department of Environmental Quality by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall produce a written report and submit it to the Department of Environmental Quality within five days of discovery of the discharge in accordance with Part II.I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the facilities; and
4. Flooding or other acts of nature.

I. REPORTS OF NONCOMPLIANCE

The permittee shall report any noncompliance, which may adversely affect surface waters or may endanger public health.

1. An oral report shall be provided within 24 hours to the Department of Environmental Quality from the time the permittee becomes aware of the circumstances. The following shall be included as information, which shall be reported within 24 hours under this paragraph:
 - a) Any unanticipated bypass; and
 - b) Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:

- a) A description of the noncompliance and its cause;
- b) The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
- c) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board or its designee may waive the written report on a case-by-case basis for reports of noncompliance under Part II.I if the oral report has been received within 24 hours and no adverse impact on surface waters has been reported.

- 3. The permittee shall report all instances of noncompliance not reported under Part II.I.2., in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II.2.

NOTE: The immediate (within 24 hours) reports required in Parts III G, H and I may be made to the Department of Environmental Quality's Regional Office. Pollution Response Program as found at <http://deg.virginia.gov/Programs/PollutionResponsePreparedness.aspx>. Reports may be made by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.

- 4. Whenever the permittee becomes aware of a failure to submit any relevant facts, or submitted incorrect information in any report to the Department, it shall promptly submit such facts or information.

J. NOTICE OF PLANNED CHANGES

- 1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a) The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - 1) After promulgation of standards of performance under § 306 of the Clean Water Act that are applicable to such source; or
 - 2) After proposal of standards of performance in accordance with § 306 of the Clean Water Act that are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.
 - b) The permittee plans alteration or addition that would significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this state permit; or
- 2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.

K. SIGNATORY REQUIREMENTS

- 1. Permit Applications. All permit applications shall be signed as follows:
 - a) For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more

manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

- b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a public agency includes:
 - 1) The chief executive officer of the agency, or
 - 2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a) The authorization is made in writing by a person described in Part II.K.1;
 - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and
 - c) The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II.K.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II.K.1 or 2 shall make the following certification:
- "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. DUTY TO COMPLY

The permittee shall comply with all conditions of this state permit. Any permit noncompliance constitutes a violation of the Virginia Stormwater Management Act and the Clean Water Act, except that noncompliance with certain provisions of this state permit may constitute a violation of the Virginia Stormwater Management Act but

not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under § 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this state permit has not yet been modified to incorporate the requirement.

M. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this state permit after the expiration date of this state permit, the permittee shall submit a completed EPA Form 1, an updated MS4 Program Plan including benchmarks and milestones for the next permit cycle and the second phase of the Chesapeake Bay TMDL action plan, at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. EFFECT OF A PERMIT

This state permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. STATE LAW

Nothing in this state permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by § 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" ([Part II.U](#)), and "upset" ([Part II.V](#)) nothing in this state permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this state permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or section 311 of the Clean Water Act.

Q. PROPER OPERATION AND MAINTENANCE

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this state permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this state permit.

R. DISPOSAL OF SOLIDS OR SLUDGES

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering surface waters.

S. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this state permit, which has a reasonable likelihood of adversely affecting human health or the environment.

T. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this state permit.

U. BYPASS

1. "Bypass", as defined in 9VAC25-870-10, means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.U.2 and U.3.
2. Notice
 - a) Anticipated Bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
 - b) Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.
3. Prohibition of bypass.
 - a) Bypass is prohibited, and the Board or its designee may take enforcement action against a permittee for bypass, unless:
 - 1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
 - 3) The permittee submitted notices as required under Part II.U.2.
 - b) The Board or its designee may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3 a.

V. UPSET

1. An upset, as defined in 9VAC25-870-10, constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
2. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

3. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

An upset occurred and that the permittee can identify the cause(s) of the upset;

- a) The permitted facility was at the time being properly operated;
 - b) The permittee submitted notice of the upset as required in Part II.I; and
 - c) The permittee complied with any remedial measures required under Part II.S.
4. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. INSPECTION AND ENTRY

The permittee shall allow the Director as the Board's designee, or an authorized representative (including an authorized contractor acting as a representative of the administrator) upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this state permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this state permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this state permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the Virginia Stormwater Management Act, any substances or parameters at any location.

For purposes of this subsection, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. PERMIT ACTIONS

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. TRANSFER OF PERMITS

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the Virginia Stormwater Management Act and the Clean Water Act.
2. As an alternative to transfers under Part II.Y.1., this state permit may be automatically transferred to a new permittee if:

- a) The current permittee notifies the Department at least two days in advance of the proposed transfer of the title to the facility or property;
- b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
- c) The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. SEVERABILITY

The provisions of this state permit are severable, and if any provision of this state permit or the application of any provision of this state permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this state permit, shall not be affected thereby.

Attachment A: Applicable TMDL Wasteload Allocations

TMDL Name	EPA Approval	Report Location	Water Body	Location	Pollutant	WLA	units	Comment
TMDL for Appomattox River	8/30/2004	Final report	Appomattox River (1)		E.coli	6.64E+09	Cfu/yr	
			Appomattox River (2)			2.07E+11	Cfu/yr	
			Appomattox River (3)			1.14E+13	Cfu/yr	
			Swift Creek (1)			8.37E+09	Cfu/yr	
			Swift Creek (2)			1.84E+11	Cfu/yr	
			Swift Creek (3)			2.38E+11	Cfu/yr	
Bacterial TMDL for the James River and Tributaries – City of Richmond	11/4/2010	Final report	Reedy Creek		E.coli	2.60+E12	Cfu/yr	Aggregated with adjacent VDOT MS4 load
			James River (Lower)	VAP-H39R-08		1.98E+13	Cfu/yr	
			Falling Creek			1.36E+13	Cfu/yr	
			James River (Lower) delisted	VAP-H39R-08		2.74E+13	Cfu/yr	
			James River (tidal)	VAP-G01E-01		2.65E+12	Cfu/yr	
			No Name Creek			3.27E+11	Cfu/yr	
			James River (upper) delisted	VAP-H39R-11		1.46E+12	Cfu/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	APPTF	Nitrogen	62,108.7	Lbs/yr	
					Phosphorus	13,646.2	Lbs/yr	
					Sediment	14,343,323.78	Lbs/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	JMSTF1	Nitrogen	954.87	Lbs/yr	
					Phosphorus	216.6	Lbs/yr	
					Sediment	37,241.25	Lbs/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	JMSTF2	Nitrogen	171,268.55	Lbs/yr	
					Phosphorus	30,450.46	Lbs/yr	
					Sediment	3,976,073.90	Lbs/yr	

Dispensation of Request for a Public Hearing
VPDES Permit No. VA0088609
Chesterfield County MS4

Appendix 2:
Fact Sheet

VSMP PERMIT FACT SHEET

This document gives pertinent information concerning the Virginia Stormwater Management Program (VSMP) Permit listed below. This permit is being processed as a **MAJOR, MUNICIPAL** permit. The Municipal discharge results from the operation of the Chesterfield County Municipal Separate Storm Sewer System (MS4).

1. **FACILITY NAME AND ADDRESS:** Chesterfield County MS4 Throughout Chesterfield
2. **PERMIT NUMBER:** VA0088609 **PERMIT EXPIRATION DATE:** March 23, 2008
3. **OWNER:** Chesterfield County
OWNER CONTACT: Scott Smedley, PE
TITLE: Director of Environmental Engineering
PHONE: (804) 748-1035
ADDRESS: P.O. Box 40
 Chesterfield, VA 23832-00400
4. **PERMIT DRAFTED BY:** DEQ, Office of VPDES Permits
 Permit Writer: Jaime Bauer Date: July 24, 2014
5. **RECEIVING WATERS CLASSIFICATION & INFORMATION:** Discharges from the permittee's MS4 enter the following HUC watersheds:

Hydrologic Unit Code (HUC)	Corresponding National Watershed Boundary Dataset 6th Order Number	HUC Name
JA23	020802070603	Appomattox River-Skinquarter Creek
JA28	020802070604	Appomattox River-Smacks Creek
JA34	020802070801	Appomattox River-Winticomack Creek
JA35	020802070802	Winterpock Creek
JA36	020802070803	Appomattox River-Lake Chesdin-Nooning Creek
JA39	020802070806	Appomattox River/Lake Chesdin-Cattle Creek
JA40	020802071001	Appomattox River-Old Town Creek
JA41	020802070901	Swift Creek-Swift Creek Reservoir
JA42	020802070902	Swift Creek-Third Branch
JA43	020802070903	Licking Creek-Second Branch
JA44	020802070904	Swift Creek-Franks Branch
JA45	020802071002	Appomattox River-Ashton Creek
JL01	020802060101	James River-Almond Creek
JL02	020802060102	Falling Creek
JL03	020802060103	James River-Proctors Creek
JL06	020802060106	James River-Curles Creek
JL07	020802060201	James River-Bailey Creek
JM83	020802050604	James River-Bernards Creek
JM85	020802050606	James River-East Branch Tuckahoe Creek
JM86	020802050607	James River-Little Westham Creek

Basin: James River
Subbasin(s): Lower, Middle, Appomattox
Sections: 1o, 1p, 4a, 5, 5a, 5b, 6, 8, 9
Class: II, III
Special Standards: PWS, bb, n

Tidal: Yes
7-Day/10-Year Low Flow: N/A
1-Day/10-Year Low Flow: N/A
30-Day/5-Year Low Flow: N/A
Harmonic Mean Flow: N/A

6. **OPERATOR LICENSE REQUIREMENTS:** A licensed operator is not required because there is no treatment facility.

7. **RELIABILITY CLASS:** This requirement is not applicable to this facility.

8. **PERMIT CHARACTERIZATION:**

☐ Issuance
☒ **Reissuance**
☐ Revoke & Reissue
☐ Owner Modification
☐ Board Modification
☐ Change of Ownership/Name
(Effective Date: _____)

☒ **Municipal**
SIC Code(s): 9199, 9999

☐ Industrial
SIC Code(s): _____

☐ POTW
☐ PVOTW
☐ Private
☐ Federal
☐ State
☐ Publicly-Owned Industrial

☒ **Existing Discharge**

☐ Proposed Discharge
☐ Effluent Limited
☐ Water Quality Limited
☐ WET Limit
☐ Interim Limits in Permit
☐ Interim Limits in Other Document
☐ Compliance Schedule Required
☐ Site Specific WQ Criteria
☐ Variance to WQ Standards
☐ Water Effects Ratio

☒ **Discharge to 303(d) Listed Segment(s)**

☐ Toxics Management Program Required
☐ Toxics Reduction Evaluation

☒ **Stormwater Management Plan**

☐ Pretreatment Program Required
☐ Possible Interstate Effects

9. **FACILITY DESCRIPTION & ACTIVITIES SUBJECT TO THIS PERMIT:** The permit authorizes point source discharges of stormwater runoff and certain non-stormwater discharges from the MS4 operated or owned by Chesterfield County. An MS4 is a conveyance or system of conveyances owned and/or operated by a public entity, which is designed or used to collect or convey stormwater runoff and is not part of a combined sewer system or publicly owned treatment works. This can include streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains that convey stormwater and ultimately discharge to receiving waters. The MS4 permit regulates the discharge from the municipally owned or operated storm sewer system and not the municipality itself.

The MS4 outfalls addressed in this permit may discharge to tributaries of these water bodies and do not drain the entire HUC acreage. The authorized discharges covered by this permit include discharges from all County MS4 outfalls including existing outfalls as well as any new outfalls constructed during the term of this permit. All discharges covered under this permit eventually drain into the James River, Appomattox River and Chesapeake Bay model segmentsheds- APPTF, JMSTF1, and JMSTF2. The acreages identified in the Chesapeake Bay model segmentsheds do not represent the acreages regulated under this permit; instead, it represents the approximate total acreage in the jurisdiction.

This permit does not and is not intended to cover all stormwater discharges within the jurisdictional boundaries of the County. This permit covers solely discharges from municipal stormwater outfalls owned and/or operated by the permittee. Drainage from acreage that discharges into the MS4 is considered regulated acreage under this permit. Drainage from acreage that discharges to surface waters through outfalls not owned and/or operated by the permittee are not considered part of the Chesterfield County MS4; and thus are not regulated under this permit.

The permittee's MS4 may be physically interconnected to the following small MS4s Phase II MS4s that are covered under the General Permit for the Discharge of Stormwater from Small MS4s:

- Virginia Department of Transportation (VAR040115)
- Virginia State University (VAR040119)
- John Tyler Community College (VAR040110)
- Defense Supply Center Richmond (VAR040001)
- City of Colonial Heights (VAR040009)
- City of Petersburg (VAR040013)
- City of Richmond (VAR040005)

10. **SEWAGE SLUDGE USE OR DISPOSAL:** Not applicable to stormwater permits.

11. **DISCHARGE(S) LOCATION DESCRIPTION:** Various stream, rivers, and tributaries of the James and Appomattox Rivers. See Attachment 1 for Chesterfield County map.

12. **MATERIAL STORED:** Materials are stored throughout the jurisdiction but are stored in containment areas or rooms or by other such means that prevent stored materials from reaching state waters if a spill were to occur.

13. **STATUTORY OR REGULATORY BASIS FOR PERMIT**

- ☒ Virginia Stormwater Management Act (§62.1-44.15:24 et seq.)
- ☒ State Water Control Law Act (§62.1 et seq.)
- ☒ Clean Water Act (33 U.S.C. §1251 et seq.)
- ☒ Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.)
- ☒ Chesapeake Bay Preservation Act (§ 62.1-44.15:67 et seq.)
- ☒ VSMP Permit Regulation (9VAC 25-870 et seq.)
- ☒ EPA NPDES Regulation (40 CFR Part 122)
- ☒ EPA Effluent Guidelines (40 CR 133 or 400-471)
- ☒ Water Quality Standards (9VAC 25-260 et. seq.)
- ☒ Wasteload Allocation from TMDL or River Basin Plan

The United States Environmental Protection Agency (EPA) delegated the authority to implement Section 402 of the CWA to the Commonwealth of Virginia on March 31, 1975. The MS4 and construction stormwater permitting portions of Section 402 implementation were transferred to the Soil and Water Conservation Board and the DCR on January 29, 2005. The program was subsequently transferred to DEQ on July 1, 2013. The conditions of this permit are established in a manner consistent with the CWA and under the laws and regulations of the Commonwealth of Virginia.

Section 62.1-44.15:25 of the Virginia Stormwater Management Act authorizes the Department to issue, deny, amend, revoke, terminate, and enforce permits for the control of stormwater discharges from MS4s. It further directs the Department to "act to ensure the general health, safety and welfare of the citizens of the Commonwealth as well as protect the quality and quantity of state waters from the potential harm of unmanaged stormwater." Section 9VAC25-870-310 of the VSMP regulations requires the development and issuance of permits that include appropriate conditions. The Department applies its authority to establish appropriate permit conditions that further advance the Permittee's MS4 program in a manner consistent with the CWA and the Act.

14. **ANTIDEGRADATION:** The State Water Control Board's Water Quality Standards includes an antidegradation policy (9VAC25-260-30). All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water

quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The antidegradation review begins with a Tier determination. Receiving streams throughout Chesterfield County are determined to be Tier 1 or 2 waterbodies. Compliance with the terms of this permit and reduction of pollutants to the maximum extent practicable is not expected to cause degradation of receiving streams to which the MS4 discharges.

15. **SITE INSPECTION DATE:** April 23, 2010 **REPORT DATE:** November 2010
PERFORMED BY: EPA (See Attachment 2)

16. **EFFLUENT LIMITATIONS/MONITORING & RATIONALE:**

Section 402(p)(3)(B) of the CWA establishes the statutory permitting requirements for discharges from municipal separate storm sewer system as the following:

- (i) may be issued on a system- or jurisdiction-wide basis;
- (ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and
- (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

This permit addresses each of the three statutory requirements established under the CWA in the following manners:

- (i) Authorization to discharge under this permit is being given to the Permittee for all discharges from its MS4. Therefore, this permit is being issued on a system-wide basis. Other MS4s located within the county boundaries are required to obtain separate authorization to discharge stormwater.
- (ii) The authorization to discharge includes specific reference to authorized discharges and prohibits non-stormwater discharges and other CWA-regulated stormwater discharges into the MS4 unless separate authorization has been obtained by the discharger.
- (iii) This permit requires controls to reduce the pollutants to the maximum extent practicable, including management practices, control techniques and system design and engineering methods, and includes other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

In 1999, the Ninth District Court of Appeals determined that MS4 permits need not require strict compliance with water quality standards; rather, compliance was to be based upon the maximum extent practicable standard established in the CWA. The court further ruled that the permitting authority could, at its discretion, require compliance with water quality standards. *Defenders of Wildlife vs. Browne* 191 F.3d 1159 (9th Cir. 1999).

EPA Region III sent a letter dated June 26, 2006 to the Department detailing EPA's expectation that MS4 discharges protect the water quality and to satisfy the appropriate water quality requirements of the CWA. This letter stated:

"[T]oday's rule specifies that the 'compliance target' for the design and implementation of municipal storm water control programs is 'to reduce pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The first component, reductions to the MEP, would be realized through implementation of the six minimum measures. The second component, to protect

water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under CWA section 402(p) (3) (B) (iii) of the need to achieve reasonable further progress toward attainment of water quality standards according to the iterative [Best Management Practices] process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to MS4s, as they would to other point sources.” 64 F.R. 68722, 68753-54 (emphases added).

Although this language is included in the Preamble to the Phase II Rule, it applies to medium and large MS4s as well [Id. At 68754]. As a result, it is clear that EPA intends all municipal dischargers to achieve both technology-based and water quality-based limits. Because WQS are generally more stringent than technology-based standards, the former will generally serve as the minimum floor for discharges. Therefore, the plain statutory language coupled with EPA's own background document on the Phase II Storm Water Rule require that Phase I MS4 permittees comply with both WQS and the MEP Standard, so that discharges must achieve the more stringent limitation.

This permit clearly defines the expectations of the permittee in meeting each of the components discussed above. The first component, reductions to pollutants to the maximum extent practicable, will be realized through implementation of the iterative MS4 Program, as defined in the permit. The second component, to protect water quality, reflects the overall design objective of the MS4 Program established by the permit. The third component, to implement other applicable water quality requirements of the CWA is met by the requirement to address TMDL wasteload allocations through the development and implementation of TMDL Action Plans for pollutants of concern identified in approved TMDLs.

The Department has determined that the most economically and environmentally feasible method for MS4s to meet the requirements established by this permit is through the implementation of BMPs using an iterative process over a series of permit cycles. MS4 BMPs may consist of structural stormwater controls as well as ordinances, policies, procedures, planning and other programmatic efforts aimed at reducing pollutant loads that are designed with the ultimate compliance goal of meeting the requirements established by this permit.

Section 9VAC 25-870-460 provides for the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible. The Department finds that at this time numeric effluent limits are infeasible given current technologies and legal authority limitations. The determination of the appropriateness for establishing BMPs as permit conditions in lieu of numeric effluent limits is consistent with the Clean Water Act. § 40 CFR 122.44 (k) of the Code of Federal Regulations provides for the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible or when authorized under section 4029p) of the Clean Water Act for the control of stormwater discharges.

In selecting the BMP approach, the Department utilized the recommendations found in EPA's guidance document *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits* (EPA833-D-96-001 September 1996) to develop a permit that requires the iterative implementation of BMPs. The iterative process allows the permittee the flexibility to select, implement, evaluate and modify its scheme of BMPs to insure implementation of the most effective BMPs in reducing the discharge of pollutants.

This permit establishes conditions that refine the implementation of the permittee's long-term MS4 program in an iterative manner that represents reasonable further progress consistent with the water quality requirements established under the CWA. Conditions in this permit are generally in the form of comprehensive programs implemented on a system-wide basis to control sources of pollution rather than targeted treatment methods. At a local level, these types of programs consist of various components, including pollution prevention measures, management or removal

techniques, stormwater monitoring, use of legal authority, and other appropriate means necessary to control the quality and quantity of stormwater discharged from the MS4.

In some instances, it may be appropriate for the permittee to consider and implement engineered permanent structural stormwater management facilities. However, the large number of MS4 outfall locations, the unavailability of land in highly developed areas and intermittent and varied discharge conditions, do not allow for the efficient use of large scale design or for the use of 'end of pipe treatment'. Therefore, conditions in this permit stress the use of a source reduction and pollution prevention approaches for the reduction of pollutants in stormwater discharges. This approach is supported on the basis that the quality of stormwater discharge from the MS4 is dependent on the sources of pollutants that contribute to the system through runoff. Minimizing pollutant sources reduces the pollutant loading in MS4 discharges.

Under this permit, the permittee is required to develop TMDL Action Plans no later than 24-months after the effective date of the permit for all TMDLs in which a wasteload was allocated to the discharger for a pollutant of concern. See Attachment 3 of this fact sheet for a list of approved TMDLs for water bodies located in Chesterfield County. In addition, the permit may also be modified or revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the treatment works that are not consistent with the permit requirements.

17. **ANTI-BACKSLIDING STATEMENT:** All limitations are the same or more stringent than limitations in the previous permit.
18. **COMPLIANCE SCHEDULES:** None
19. **SPECIAL CONDITIONS RATIONALE:**

Part I.A.1 Authorized Discharges - 9VAC 25-870-10 and 9VAC 25-870-380 C.2(d)(2)(a)

The permit authorizes the discharge of stormwater runoff from the permittee's MS4 in accordance with the conditions established by this permit. MS4 discharges are to be composed only of stormwater runoff resulting from precipitation or snowmelt. Some incidental non-stormwater discharges are authorized provided these discharges have been determined not to be significant sources of pollutants by the permittee, the Virginia State Water Control Board, or the Soil and Water Conservation Board.

This permit also allows for non-stormwater discharges through the MS4 when those discharges are covered by a separate Virginia Pollutant Discharge Elimination System (VPDES) permit issued by DEQ or where DEQ has determined that a discharge is not a significant source of pollutants and that a VPDES permit is not required. The permittee may require additional BMPs or stormwater management activities VPDES permitted facilities when those facilities discharge to its MS4 provided the permittee utilizes its delegated legal authorities.

This permit also allows the discharges of stormwater from regulated industrial activities, as defined at 9VAC 25-31-10, through the MS4 provided authorization is obtained from DEQ by the industrial activity operator through a separate VPDES permit action. Similarly, this permit allows for discharges of stormwater from construction activities regulated under the VSMP permitting regulations provided authorization is obtained by the construction activity owner or operator through a separate VSMP permit action from the appropriate VSMP permitting authority. Discharges resulting from spills into the MS4 are not authorized by this permit unless the discharge of material resulting from a spill to the MS4 is necessary to prevent loss of life, personal injury, or severe property damage. This permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the permittee nor relieve the party(ies) responsible for a spill from liability.

This permit does not regulate discharge categories that are excluded from obtaining permit coverage at 9VAC 25-870-300 and from federal Clean Water Act (CWA) regulation. Any discharges of pollutant and/or acreage associated with excluded discharge categories is considered unregulated by this permit whether it discharges through the MS4 or directly to State waters.

Part I.A.2 Permittee Responsibilities - 9VAC 25-870-380 C.2.d

This permit requires that the permittee clearly define the roles and responsibilities of each of its departments to ensure compliance with the requirements of this permit. By defining who is responsible for which conditions of the permit, management of the overall program is streamlined and staff is made aware of their responsibilities.

Part I.A.3. Legal Authority - 9VAC 25-870-380 C.2.a

Adequate legal authority is required for the permittee to implement and enforce the stormwater management plan. It should be noted that Virginia considers counties as “arms” or instruments of the State. Under the Dillon Rule, the Department cannot issue a permit that gives authorities to political subdivisions that have not been conferred to them either expressly, or by necessary implication, by Code. “In determining the validity of a local government’s exercise of legislative authority, Virginia follows the Dillon Rule of strict construction that provides ‘municipal corporations have only those powers expressly granted, those necessarily or fairly implied from expressly granted powers, and those that are essential and indispensable’ and its corollary that ‘[t]he powers of county boards of supervisors are fixed by statute and are limited to those powers conferred expressly or by necessary implication.’ Therefore, to have the power to act in a certain area, local governments must have express enabling legislation or authority that is necessarily implied from enabling legislation.” Opinion of the Attorney General to the Hon. Richard P. Bell, 2010 Va. AG S-32 (10-045) [citations omitted].

Part I.A.4 MS4 Program Resources - 9VAC 25-870-380 C.1.f

An annual fiscal analysis is necessary to show that the permittee has adequate resources to meet all permit requirements.

Changes from the previous permit. The 2003 permit stipulated that the permittee provide adequate resources to implement the activities under the Stormwater Management Program *to the maximum extent practicable*. This phrasing has been removed. The reasons for this modification are:

- 1) The term ‘maximum extent practicable’ or MEP has a specific meaning in MS4 statutory language. MEP is the statutory compliance effort required to meet the CWA for the reduction of pollutants and should not be applied to any funding requirements.
- 2) The permit is the tool used under the CWA to establish conditions that the permittee must meet. Compliance is determined based on the permit. Thus, it is more appropriate to require that the permittee provide adequate funding to meet the conditions of the permit.

Part I.A.5 Permit Maintenance Fees - 9VAC 25-870-700 et.seq.

The permittee is required to pay permit fees in accordance with VSMP fee regulations.

Part I.A.6 MS4 Program Plan - 9VAC 25-870-380 C.1.e

The permittee is required to develop a Stormwater Management Plan (SWMP) document that describes how the permittee will meet the control requirements in the permit which include components to address stormwater management through existing structural and source controls, new and significant redevelopment, roadways, retrofitting, pesticide, herbicide and fertilizer

applications, illicit discharges and illegal disposal, spill prevention and response, industrial and high risk runoff, construction site runoff, storm sewer infrastructure management, county facilities, public education, training, water quality screening, TMDL action plans and a Chesapeake Bay TMDL action plan. The SWMP document is a consolidation of all of the permittee's relevant ordinances or other regulatory requirements, the description of all programs and procedures (including standard forms to be used for reports and inspections) that will be implemented and enforced to comply with this permit and to document the selection, design, and installation of all stormwater control measures. The permittee is required to submit its SWMP document to the permitting authority. If modifications to the SWMP are necessary then the permitting authority will notify the permittee.

Part I.A.7 MS4 Program Review and Updates - 9VAC 25-870-380 C.1.e

The permittee is required to review and update the MS4 Program Plan required in Part I.A.6 as necessary. This condition establishes the annual report as the mechanism for maintaining an updated MS4 Program Plan as well as procedural requirements for plan modifications. The expectation established by this permit is that any person could review the most recent annual report and gain thorough understanding of the permittee's program. The first annual report is to be updated to include the items necessary to demonstrate compliance with this permit and must be made available for public review no later than 30-days after submittal to the Department.

Updates to the MS4 Program Plan made to comply with this state permit that are more stringent than current program requirements are allowed and should be submitted with the first annual report or as specified in the permit. The permittee may submit program updates for review and approval at any time during the term of this permit.

Part I.B – Stormwater Management

Part I.B.1 Planning - 9VAC 25-870-380 C.2.d

The permittee is required to submit a Storm Water Capital Improvement Plan of conceptual stormwater pollutant reduction projects for implementation consideration. Consideration in the analyses will include the number of BMP Acres treated, impervious area draining into BMP, condition of the downstream channel, amount of pollutant reduction, feasibility for implementation, the unit costs for pollutant reduction and other benefits from the proposed BMP. Additionally, for each project proposed for implementation, the permittee shall describe how the project will improve stormwater management and pollutant reduction from the MS4 system to the receiving water. The analysis will include a prioritized list of the identified conceptual projects for consideration of implementation.

Part I.B.2.a) Construction Site Runoff - 9VAC 25-870-380 C.2.d(4)

This requirement is one of the six minimum control measures and is also required in the federal effluent limitation guidelines for the Construction and Development Point Source Category 40 CFR 450. Stormwater discharges from construction sites generally include sediment and other pollutants such as phosphorus and nitrogen, turbidity, pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed. This permit requires that the permittee continue to operate a local erosion and sediment control program that is consistent with the Virginia Erosion and Sediment Control Law and attendant regulations as the minimum standard. This permit also incorporates the reduced regulatory size threshold to comply with the Chesapeake Bay Preservation Act requirements. As a result, the permittee's program will address land disturbing activities 10,000 square feet and greater. By referencing the state regulatory requirements, the permit is consistent with state standards for plans review, establishes a site inspection schedule and staff training.

This permit also requires that the permittee continue implementation of a more restrictive program that requires erosion and sediment controls on land disturbing activities 2,500 square feet and

greater where the permittee has determined additional water quality protection is warranted under the Chesapeake Bay Preservation Act. The permit authorizes the ability for the permittee to require more stringent erosion and sediment controls where it finds necessary, provided the requirements are consistent with the authorizing statute. Under this permit, the permittee must implement procedures to ensure that separate VSMP authorization has been obtained by large and small construction activities and requires that the permittee treat pollutant discharge other than sediment as an illicit discharge.

Part I.B.2.b) Post Construction Runoff from Areas of New Development and Development on Previously Developed Lands - 9VAC 25-870-380 C.2.d(1)(b)

This requirement is one of the six minimum control measures. The Virginia Stormwater Management Program regulations require that an MS4 develop and implement a program to address post-construction discharges from new development and redeveloped sites, and ensure the long-term operation and maintenance of these controls. This permit continues to implement the Commonwealth's iterative strategy to address the impacts of stormwater runoff from urbanization.

This permit requires the permittee to consistently implement the 2014 VSMP stormwater regulations. In order to coordinate implementation efforts between MS4 localities and the Commonwealth, the regulation designates a start date consistent with reissuance of the CGP, expected to be effective July 1, 2014. Under this permit, the permittee is required to update its ordinances and procedures to be consistent with the regulations and submit them to DEQ for review and approval. DEQ approved the permittee as a VSMP authority on July 1, 2014.

Part I.B.2.c) Retrofitting on Prior Developed Lands - 9VAC 25-870-380 C.2.d(1)(d)

As required in Part I.B.1 of the permit, the permittee must identify and prioritize Storm Water projects from the Capital Improvement Program (CIP) related to pollutant reduction in order to work toward reducing pollutants to the maximum extent practicable (MEP). The permittee may use stream restoration projects to satisfy this retrofit requirement. Based on the prioritized list, the permittee will select five of these projects for implementation prior to expiration of the permit. The Department has determined that MEP for this permittee is five projects from based on review of the permittee's watershed plans and CIP. The Department will review, provide comments, and/or approve the proposed projects for implementation to ensure that the projects will reduce pollutants to the maximum extent practicable. The Department may request additional and/or alternative projects if the five selected projects do not meet the MEP standard. In determining MEP, the Department considers land use of area draining the proposed BMPs; pervious and impervious acreage; downstream receiving water and channel conditions; holistic benefits of retrofits, watershed improvement plans, and/or engineered structures; the estimated pollutant reductions; and cost of pollutant reductions. The permit allows the permittee to substitute alternative projects if opportunity exists provided that similar screening is applied to the substituted project as that in the watershed retrofit plans and that the alternative projects are also reviewed and approved by the Department. After approval, the permittee will proceed with implementation of the projects such that they are completed prior to the expiration of the permit. With each annual report, the permittee will provide a status update of the selected projects. For each project, the permittee will track the number of retrofit projects, type of land use being retrofitted, total acreage retrofitted and retrofit type by the watershed identified in the retrofit study and location so that it is possible to calculate the pollutant reductions associated with the project.

Part I.B.2.d) Roadways - 9VAC 25-870-380 C.2.d(1)(c)

The Virginia Department of Transportation maintains 99% of the roadways and right of way areas in the county. The permit requires any roadways that are maintained by the permittee to be

maintained in a manner to minimize discharge of pollutants. The permittee will develop a list of roadways, streets, and parking lots maintained by the county. The list will include the number of miles of roadway treated by BMPs and miles of roadway not treated by BMPs. In addition, the permittee will develop a protocol to minimize pollutant discharge from maintenance activities, equipment storage, and material storage. The permit requires that all deicing and sanding materials remain covered and protected from precipitation until applied.

See Part I.B.2.n) for coordination requirements between the permittee and VDOT.

Part I.B.2.e) Pesticides, Herbicides and Fertilizers - 9VAC 25-870-380 C.2.d(1)(f)

This permit establishes a development schedule so that no later than five years of the permit effective date, turf and landscape nutrient management plans will be implemented on all permittee owned and operated lands where nutrients are placed on more than one-acre of contiguous land. Nutrient management plans are designed to insure that the appropriate amounts of nutrients are applied to maintain a healthy vegetative cover that is necessary both for the filtration and infiltration of stormwater runoff. A general 5% reduction in baseline application is a simplistic approach that does not address the needs of the vegetation nor represents a sound scientific approach. Virginia regulation, 4VAC5-15-10 defines a "nutrient management plan" as a plan "prepared by a Virginia certified nutrient management planner to manage the amount, placement, timing, and application of manure, fertilizer, biosolids, or other materials containing plant nutrients in order to reduce nutrient loss to the environment and to produce crops." DCR has a Turf and Landscape Nutrient Management Planning category in its nutrient management program. These requirements are expected to be followed by the certified nutrient management planner. Additional information regarding turf and landscape nutrient management plans can be found at http://www.dcr.virginia.gov/stormwater_management/nmplnr.shtml#forturf.

The permit also authorizes regulation of fertilizers in accordance with authorizing State statute if the permittee determines that such a source control is necessary to prevent any further degradation to water resources, to address TMDL requirements, to protect exceptional state waters, or to address specific existing water pollution and are regulated in accordance with § 62.1-44.15:33.

The permit also complies with State statute by restricting the use of materials containing nutrients as deicing agents and restricting the use of cleaning agents containing phosphorus.

Part I.B.2.f) Illicit Discharges and Improper Disposal - 9VAC 25-870-380 C.2.d(2) and (g)

The sanitary sewer system is maintained and operated by the permittee under the Chesterfield County Department of Public Utilities. The permit requires that the permittee continue to identify illicit discharges and improper disposal through inspection of sanitary sewer. This permit also defines non-sediment discharges at construction site activities as illicit discharges under this permit and requires implementation of appropriate pollution controls. The permittee is required ensure that programs are available to citizens for the proper disposal of materials such as used motor oil. These programs can be run by a third party; however the permittee is responsible for ensuring that they are available and publicizing them to citizens.

Part I.B.2.g) Spill Prevention and Response - 9VAC 25-870-380 C.2.d(2)(d)

The permit requires the permittee to continue implementation of a program with the County Fire Department and other county staff to prevent spills and when unpreventable, provide the proper response.

Part I.B.2.h) Industrial and High Risk Runoff - 9VAC 25-870-380 C.2.d(3)

This permit places emphasis on the visual inspection of industrial and high risk outfalls at their discharge into the MS4 as a means of identifying potential sources of pollutants. These requirements are in conjunction with the Commonwealth's VPDES permitting program and requires the permittee to work in coordination with the appropriate Department or regional office that oversees VPDES permitting.

The permittee prioritizes facilities for inspection by rating them on a scale of 1 to 5, with 1 being a facility with little or no chance of an illicit discharge such as office complexes; and 5 being a high risk facility because of a combination of, handling hazardous materials, collecting waste for treatment, disposal or recovery, having a NPDES/VPDES permit, SARA Title III facilities, facilities that have had releases in the past or any combination of the aforementioned criteria.

Part I.B.2.i) Storm Sewer Infrastructure Management - 9VAC 25-870-380 C.2.d(4)

The permittee does not maintain all of the stormwater management facilities discharging to the permittee's MS4. In these circumstances, maintenance agreements between the permittee and the responsible party are used to establish that the infrastructure is properly maintained. The permittee is responsible for establishing inspection and follow-up protocols and annual inspecting a portion those infrastructures to ensure that they are being properly maintained.

In order to ensure maintenance of the storm sewer infrastructure, the permittee is required to annually inspect 20% of the total storm system and easements such that the entire system is inspected by the end of the permit term. Additionally, for those SWM facilities that are privately maintained and for which a maintenance agreement has been established, the permittee must inspect those facilities at least once during the term of the permit.

Additionally, the permittee must map the MS4 service area and associated MS4 outfalls within 18 months of the permit effective date. The permittee must also identify impervious and pervious acres served for each local watershed.

Part I.B.2.j) County Facilities - 9VAC 25-870-380C.2.d

This is one of the six minimum control measures. This permit contains a new section that addresses discharges specifically from County facilities. This section pertains specifically to those facilities owned and operated by the county. The conditions established in this permit require the utilization of good housekeeping practices, the discharge prohibition of vehicle wash water, wastewater, purposeful dumping of yard waste and grass clippings and the application for separate permit coverage for all facilities regulated under the VPDES industrial stormwater program.

This permit also requires the development and implementation of individual stormwater pollution prevention plans for any high-priority county facilities as well as the evaluation of all county facilities with greater than two-acres of impervious surface for potential retrofit opportunities.

Part I.B.2.k) Public Education/Participation - 9VAC 25-870-380 C.2.d(2)(e) and (f)

This is one of the six minimum control measures. The permittee is required to establish and implement a program to educate the public of the impacts of stormwater on water quality and how stormwater pollution can be mitigated.

This permit places additional emphasis not included in the 2003 permit on public education and outreach that will enhance the permittee's existing programs. This permit also encourages transparency of the permittee's efforts by requiring that the permit, annual reports and the most current MS4 Program Plan be made available for public review.

Additionally, the permittee is evaluating the implementation of program to educate staff of private golf courses on techniques and use of fertilizers and pesticides.

Part I.B.2.l) Training - 9VAC 25-870-380 C.2.d(4)

This permit requires the permittee to provide training to county staff in stormwater pollution prevention practices and identification of unauthorized discharges. The permittee will continue implementation of training employees to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. This permit requires employee training for existing and new employees who are involved in performing pollution prevention and good housekeeping practices. All training must include a general stormwater educational component, including an overview of the requirements with which the municipality needs to comply. The permittee is responsible for identifying which staff must attend trainings based on the applicability of the topics listed, and they are required to conduct refresher training.

Additionally, as part of their stormwater management plan, in 2010 the permittee implemented a program to train county building inspectors in proper erosion and sediment control practices and inspections. The additional inspectors were required to ensure timely Erosion and Sediment control inspections in order to maintain compliance with the standard inspection timeframe for single-family building permits.

Part I.B.2.m) Water Quality Screening Programs - 9VAC 25-870-380 C.2.d(2)(b) and (c)

The permit requires dry and wet weather monitoring of the MS4 system. The focus of dry weather screening is to identify illicit connections and unauthorized discharges to the MS4. The permit prescribes specific criteria for identifying locations for dry weather screening. The permit requires the permittee to screen no less than 500 of the total outfalls in its jurisdiction during the term of the permit.

Additionally, the permittee will establish wet weather screening protocols to be incorporated into the MS4 Program Plan.

Part I.B.n) VDOT Coordination

The Chesterfield County MS4 is interconnected with Virginia Department of Transportation MS4. In order to effectively implement the MS4 Program, owners and/or operators of interconnected MS4s must communicate program requirements and keep one another informed of the implementation of the MS4 programs. The permit requires that the permittee coordinate with VDOT regarding various components of the Chesterfield County MS4 Program including system mapping, TMDL action planning, and water quality monitoring.

Part I.C – Monitoring Requirements - 9VAC 25-870-380 C.2.c.(4)

The permittee is required to perform watershed monitoring for those conventional, nutrient, and bacterial parameters listed in the permit in addition to the dry and wet weather screening. The monitoring plans need to include at least one location as a baseline for data evaluation or identify some other method in the monitoring plan by which the data can be evaluated to demonstrate upstream BMP effectiveness. The permittee may re-designate monitoring locations for bacterial and ambient monitoring after collection of sufficient data for analysis and notification to the Department.

This permit requires the review and implementation of a floatable monitoring to document the effectiveness of litter control programs.

This permit requires maintenance of stormwater management facility tracking data and the monitoring of private stormwater management facilities maintenance. This monitoring program is

designed to ensure that maintenance is being conducted on privately owned stormwater management facilities.

Part I.D – TMDL Action Plan and Implementation

Part I.D.1 Chesapeake Bay TMDL Action Plan – 9VAC 25-870-460:

Pollutant of Concern Loadings from Existing Sources

This permit requires the permittee to reduce the loadings of nutrients and sediment from existing sources (pervious and impervious regulated urban lands developed prior to July 1, 2009) equivalent to Level 2 (L2) scoping run reductions simulated in the Chesapeake Bay Watershed Model. Level 2 implementation equates to an average reduction of 9% of nitrogen loads, 16% of phosphorus loads, and 20% of sediment loads from impervious regulated acres and 6% of nitrogen loads, 7.25% of phosphorus loads and 8.75% sediment loads from pervious regulated acres beyond 2009 progress loads and beyond urban nutrient management reductions for pervious regulated acreage. Calculations are based on an average tributary loading rate

In the Phase I and II WIPs and the Chesapeake Bay TMDL, the Commonwealth and EPA committed to using a phased approach for the MS4 sector affording MS4 permittees three full five year permit cycles to implement necessary reductions as follows:

- 5% of L2 achieved by the end of the first permit term;
- 35% of the necessary reductions in the second permit term (totaling at least 40% of the necessary reductions no later than the end of the second permit term); and
- 60% of the necessary reductions from the third permit term (totaling 100% of the necessary reductions no later than the end of the third permit term).

Due to multiple delays in permit reissuance, three full permit terms now extends beyond the Chesapeake Bay Program partnership's 2025 goal for implementation of all controls necessary to meet the TMDL. Under the Phase I and II WIPs, Virginia has recognized the right to adjust this plan and take different approaches to meet the 2025 goal. Virginia is committed to a phased approach that allows multiple permit terms for MS4 permittees to fully implement nutrient and sediment reductions necessary to meet the Chesapeake Bay TMDL wasteload allocations. Virginia will adjust its commitments, if necessary, as part of its Phase III WIP to ensure that practices are in place by 2025 that are necessary to meet water quality standards in the Chesapeake Bay and its tidal tributaries.

The permittee shall also review its authorities and adopt and modify the necessary ordinances as well as develop its resources in order to implement the necessary reductions, e.g., develop design protocols, operation and maintenance programs, site plan review criteria, inspection standards, and tracking systems during this first permit cycle.

The permittee is required by this permit to identify the acreages for both the pervious and impervious urban land uses as June 30, 2009. This will allow the permittee to calculate the existing source loads discharged as of 2009 using Table 1 by multiplying the existing acreage by the Edge of Stream loading rates. Using Table 2, the permittee will calculate the total load reductions required to meet 5% reductions during this term of the permit by multiplying the existing acreage by the reduced load rates.

The permittee is allowed to adjust the levels of reduction between pervious and impervious land uses within their service area and Chesapeake Bay segment level, provided the total pollutant load reduction is met. For example, the permittee could implement a 5% nitrogen load reduction on impervious land uses by implementing a reduction strategy sufficiently greater than 6% nitrogen load reduction on pervious land uses provided the total loads from both land uses are met.

Compliance with reduction in loading rate will be measured based on the total reductions required as determined by calculations defined by Tables 1 and 2 in the permit and the reported implementation of BMPs. Additionally, the permittee should use the Watershed Model Phase 5.3.2, or some other tool or methodology that is approved by the department as consistent with the assumptions of the Bay TMDL in order to demonstrate compliance with the reductions.

Finally, since 9VAC 25-870-610 provides legal authority for the Department to open, modify and reissue this permit, this permit includes language providing notification that it may be opened and modified. DEQ will consider recommending to the Department reopening the permit upon request when an applicable TMDL has been adopted by the State Water Control Board.

This permit is designed to strengthen the permittee's MS4 program in order to protect all surface waters. As a result, by implementing the main body of the permit, the permittee will provide increased protection to the Chesapeake Bay in a manner consistent with Virginia's Phase I and II Watershed Implementation Plan (WIP) commitments accepted by EPA.

Control of Transitional Loads and Accounting for Growth from New Development

The permit requires reductions from increased loads from new sources as well as sources grandfathered under the VSMP regulation. Additionally, new sources as of July 1, 2014 are required to meet post development criteria of 0.41 pounds per acre per year of total phosphorus which has been determined by the Department to be nutrient neutral.

Additional Protections Provided the Chesapeake Bay by this Permit

This permit requires that the permittee continue to identify and eliminate illicit discharges and illegal dumping. The elimination of these illicit discharges reduces the amount of sediment and nutrients discharged through the MS4. For example, using concentrations for the typical pollutant concentrations in untreated medium strength domestic wastewater, published in Wastewater Engineering Treatment and Reuse, Fourth Edition, the elimination of sanitary inflow into the MS4 will remove an estimated 6 lbs. of total suspended solids, 0.33 lbs. of total nitrogen and 0.06 lbs. of total phosphorus per 1,000 gallons of domestic wastewater from entry into the MS4. This permit does not regulate discharges from sanitary sewer treatment plants or their associated infrastructure or discharges from septic systems. Failed and failing sewer lines and septic tanks will be regulated under the appropriate Code and regulations. The permittee will continue to identify these discharges and report them to the appropriate regulatory authorities.

This permit requires continued implementation street sweeping and stormwater infrastructure maintenance. If the permittee chooses to utilize street sweeping and other infrastructure maintenance as a mechanism for reduction, it will need to describe this effort in its Chesapeake Bay Action Plan.

Part I.D.2 TMDL Action Plans Other than the Chesapeake Bay TMDL– 9VAC 25-870-460

The 2003 permit does not address TMDLs. This permit requires that the permittee develop TMDL Action Plans for watersheds within 24-months of permit issuance where a wasteload for a pollutant of concern has been allocated to the permit at the time of permit issuance. TMDL Action Plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is made to reduce pollutant discharges in a manner that is consistent with the assumptions and requirements of the applicable TMDL wasteload allocations. Progress will be demonstrated by representative and adequate monitoring or other methods (e.g. modeling). Demonstration of compliance with the TMDL WLA assumes that the permittee is not causing or contributing to violations of the water quality standards.

This permit establishes and Action Plan development schedule and requires:

- 1) Defined content be included in the Action Plan;
- 2) Public participation and comment during development of the Action Plan;
- 3) Implementation of the Action Plan; and,

4) Evaluation of the Action Plan

For TMDL Action Plans other than the Chesapeake Bay Action Plan, adequate progress is measured during this permit cycle as development and implementation of the TMDL Action Plans. This is in contrast to the requirements of the Chesapeake Bay Action Plan for which permit requirements for MS4s were established in Virginia's Chesapeake Bay Watershed Implementation Plan.

Part I.E – Annual Reporting - 9VAC 25-870-440

Compliance with this permit will be evaluated on the basis of program progress and results over the reporting periods throughout the life of the permit. This permit refines the reporting requirements to more specifically monitor the effectiveness of the MS4 Program. Given the large number of variables regarding municipal stormwater, it is impractical to expect a chemical monitoring program to demonstrate pollutant load reductions or ambient water quality improvements resulting from MS4 Program implementation during a single permit term.

Similarly, it is not possible to evaluate pollutant load reductions, ambient water quality improvements or the overall effectiveness of the program by utilizing only the effectiveness indicators found in this permit.

Reports are to be submitted on an annual basis and to be aligned with the permittee's fiscal year. The permittee is required to maintain an MS4 Program Plan that details the MS4 program and progress including all annual reports and is available for public review.

As appropriate, the Department may specify additional requirements or compliance schedules in order to achieve the level of implementation and progress deemed necessary by the Department to achieve water quality protection and meet the intent of the MS4 permitting program.

Part I.F – Definitions This portion of the permit provides definitions for those terms not explicitly defined in applicable statutes or regulations.

Part II, Conditions Applicable to All VPDES Permits The VPDES Permit Regulation at 9VAC 25-870-430 requires all VPDES permits to contain or specifically cite the conditions listed.

20. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE:** Not Applicable

21. **OTHER CONSIDERATIONS IN LIMITATION DEVELOPMENT:**

VARIANCES/ALTERNATE LIMITATIONS: Not applicable

SUITABLE DATA: Periodic discharge monitoring is not required of this facility. The permit requires however, ambient stream monitoring for conventional pollutants, bacteria, and toxicity as well as extensive annual reporting regarding best management practices and stormwater pollution prevention plans.

CONSISTENCY WITH STATE AND LOCAL LAW OR REGULATION: Section 9VAC 25-870-320 provides that a VSMP permit cannot infringe on any state or local law or regulations. This is consistent with federal language found at 40 CFR 122.5(c). Although the municipality may not have ownership of the acreage discharging to receiving waters through its MS4, it can use its legal authority granted by the Commonwealth of Virginia to control the pollutant contributions in a manner consistent with established local ordinances and to implement mechanisms necessary to meet conditions established by the permit. As this permit only regulates the discharge of municipal stormwater and not the municipality, the permit cannot infringe on other state or local laws such as those pertaining to land use and zoning, which are clearly defined by provisions of other federal,

state or local code. EPA recognized these limitations, specifically those regarding land use, in its Phase II Stormwater Regulations in the Federal Register Vol. 222 (Page 68762) which states, "Land use planning is within the authority of local governments and disagrees that, the implication of [the Phase II rule] dictates any such land use decisions."

PERMIT FLEXIBILITY: During its regulatory action to establish the Phase I Stormwater Regulations, EPA provided guidance for implementing the regulations. As stated in the Federal Register, Vol. 55, No. 222, November 16, 1990 (Page 47994) "EPA and the States will strive to achieve environmental results in a cost effective manner by placing high priority on pollution prevention activities, and by targeting activities based on reducing risk from particular harmful pollutants and/or discharges to high value waters." To this end, the Department recognizes that, in most instances, the permittee is best suited to determine the specificity, design and targeting of the comprehensive stormwater management programs to address priorities in a cost effective manner. As such, the permit provides flexibility for the permittee while still establishing specific, enforceable permit conditions in accordance with applicable laws and regulations. This promotes the identification, targeting and control of stormwater pollutant sources in an appropriate manner given the available control alternatives.

22. **303(d) LISTED SEGMENTS:**

The permittee discharges to multiple receiving streams some of which may be listed on the current (2012) 303(d) list. Attachment 3 includes a list of the 303(d) listed waterbodies for which a TMDL has been approved and the permittee given a wasteload allocations for the pollutant(s) of concern.

23. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET SCORE:** 700 SEE ATTACHMENT 4

24. **PLANNING CONCURRENCE:**

25. **Public Notice Information required by 9VAC 25-870-530:**

Publication: _____

Publication Dates: _____

Comment Period: Start Date: _____ End Date: _____

DEQ accepts comments and requests for public hearing by hand delivery, e-mail, fax, or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses, and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

Ms. Jaime Bauer
Department of Environmental Quality
Office of VPDES Permits
P. O. Box 1105
Richmond, Virginia 23218

For additional information, including a copy of the Chesterfield County draft individual MS4 permit and permit fact sheet, or to review copies of materials or applicable laws and regulations, contact Ms. Jaime Bauer at (804) 698-4416 or at the address above.

PUBLIC COMMENTS RECEIVED ON DRAFT PERMIT:

26. **Additional Comments:**

- a. **Previous Board Action:** None
- b. **Staff Comments:**
- c. **VDH Comments:**
- d. **EPA Comments:**
- e. **Other Comments:**

27. **SUMMARY OF FACT SHEET ATTACHMENTS:**

Attachment 1 - Site Inspection Report
Attachment 2 - Jurisdictional Map
Attachment 3 - 303(d) Listed Segments with an approved TMDL
Attachment 4 - NPDES Rating Worksheet

Attachment 1 - Site Inspection Report



**CHESTERFIELD COUNTY
MUNICIPAL SEPARATE STORM
SEWER SYSTEM (MS4)
INSPECTION**

**CHESTERFIELD
DEPARTMENT OF ENVIRONMENTAL ENGINEERING
9800 GOVERNMENT CENTER PARKWAY
CHESTERFIELD, VA 23832**

**FINAL
NOVEMBER 2010**

**U.S. Environmental Protection Agency, Region III
Water Protection Division
Office of NPDES Enforcement (3WP42)
1650 Arch Street
Philadelphia, PA 19103**

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EXECUTIVE SUMMARY

Municipal Separate Storm Sewer System (MS4) Inspection Report Chesterfield County, Virginia

From April 21 through 22, 2010, a compliance inspection team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3, Virginia Department of Conservation and Recreation (DCR), EPA's contractor, Eastern Research Group, Inc. (ERG), and ERG's subcontractor, PG Environmental, LLC, inspected the municipal separate storm sewer system (MS4) program of the county of Chesterfield, Virginia. Discharges from the county's MS4 are regulated by Virginia Pollution Discharge Elimination System (VPDES) Permit Number VA0088609, effective March 24, 2003. The purpose of this inspection was to obtain information for evaluating the County's compliance with Permit VA0088609, which is included in Attachment 1. The inspection focused specifically on the following sections of the Permit in relation to the county's MS4 program: (1) Part I.B.1.a - Structural and Source Control Measures; (2) Part I.B.1.b - Unauthorized Discharges and Improper Disposal; (3) Part I.B.1.c - Runoff from Industrial and Commercial Facilities; and (4) Part I.B.1.d - Runoff from Construction Sites.

Based on the information obtained and reviewed, the EPA's compliance inspection team made several observations concerning Chesterfield County's MS4 program related to the specific permit requirements evaluated. Table 1 summarizes the permit requirements and the observations noted by the inspection team.

Table 1. Observations Identified During the Chesterfield Inspection (4/21/10 – 4/22/10)

Virginia Permit Number VA0088609 Requirement	Observations
I.B – Storm Water Management Program	Observation 1. The county of Chesterfield did not maintain a written description of its current Storm Water Management Program.
I.B.1.a – Structural and Source Control Measures	No observations for this element of the permit.
I.B.1.b – Unauthorized Discharges and Improper Disposal	Observation 2. The county of Chesterfield was not providing adequate resources to complete annual dry weather screening inspections of identified outfalls. Observation 3. The county of Chesterfield was not completing and documenting follow up action taken after evidence of an illicit discharge was observed.

Table 1. Observations Identified During the Chesterfield Inspection (4/21/10 – 4/22/10)

Virginia Permit Number VA0088609 Requirement	Observations	
I.B.1.c – Runoff from Industrial and Commercial Facilities	Observation 4.	The county of Chesterfield did not have an industrial inspector to complete the inspections required by I.B.1.c.(1) and I.B.1.c(2) of the permit.
	Observation 5.	The county of Chesterfield did not have a formal training program for identifying stormwater issues on industrial and commercial sites.
	Observation 6.	The county of Chesterfield was not adequately minimizing pollutant discharges from county industrial facilities.
I.B.1.d – Runoff from Construction Sites	Observation 7.	The county of Chesterfield had not developed standard procedures for consistent and progressive escalation of its available enforcement actions based on inspection observations.
	Observation 8.	The county of Chesterfield Erosion and Sediment Control (ESC) inspectors did not assess non-sediment, construction site pollutant sources.
	Observation 9.	The county of Chesterfield’s plan review and approval, field inspection, and plan change processes were not in accordance with the Chesterfield County Erosion and Sediment Control Ordinance for the Magnolia Lakes construction site.

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I. INTRODUCTION

From April 21 through 22, 2010, a compliance inspection team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3, Virginia Department of Conservation and Recreation (DCR), EPA's contractor, Eastern Research Group, Inc. (ERG), and ERG's subcontractor, PG Environmental, LLC, (hereafter, collectively, EPA inspection team) inspected the municipal separate storm sewer system (MS4) program of the county of Chesterfield, Virginia (hereafter, the county, Chesterfield, or the county of Chesterfield). Discharges from the county's MS4 are regulated by Virginia Pollution Discharge Elimination System (VPDES) Permit Number VA0088609, effective March 24, 2003 (hereafter, the permit). The purpose of this inspection was to evaluate compliance with the permit, which is included in Attachment 1. The following personnel participated in this inspection:

Department of Environmental Engineering ¹ :	Mr. Richard McElfish, Director Mr. Scott Flanigan, Water Quality Manager Ms. Laura Barry, Water Quality Analyst Mr. Robert Claudio, ESC Inspector for Area 5 Mr. Roger Clifton, ESC Inspector for Area 7 Mr. Weedon Cloe, Senior Water Quality Analyst Mr. Gregory King, ESC Inspection Supervisor for Team B Mr. Doug Pritchard, Erosion and Sediment Control (ESC) Program Administrator Mr. Ray Sadler, Administrative Analyst Mr. Jeff Underwood, ESC Inspection Supervisor for Team A
EPA Representatives:	Mr. Andrew Dinsmore, EPA Region 3, Stormwater Team Leader Ms. Allison Graham, EPA Region 3
Virginia DCR Representative:	Mr. Doug Fritz, MS4 Program Manager
EPA Contractors:	Mr. Mark Briggs, ERG Ms. Kavya Kasturi, ERG Mr. Scott Coulson, PG Environmental, LLC

The inspection focused specifically on the following sections of the Permit in relation to the county's MS4 program: (1) Part I.B.1.a - Structural and Source Control Measures; (2) Part I.B.1.b - Unauthorized Discharges and Improper Disposal; (3) Part I.B.1.c - Runoff from Industrial and Commercial Facilities; and (4) Part I.B.1.d - Runoff from Construction Sites.

Section II of this report presents background information on Chesterfield County's MS4 program. Section III presents information obtained during the inspection related to the specific permit requirements evaluated.

II. CHESTERFIELD BACKGROUND

The county of Chesterfield is located in central Virginia and is bordered by the James River, the Appomattox River, and the Cities of Richmond, Petersburg, Hopewell, and Colonial Heights. As of 2009, the county's population was estimated as 306,670. The county has a total area of 426 square miles.

Chesterfield's MS4 program is administered by the following departments:

¹ A copy of sign-sheets containing the names of all county participants in the inspection is included as Attachment 2.

- Department of Environmental Engineering;
- Department of Fire and EMS;
- Department of Public Utilities;
- Department of Parks and Recreation;
- Department of General Services; and
- Department of Planning.

III. INFORMATION OBTAINED DURING THE INSPECTION REGARDING PERMIT REQUIREMENTS

The EPA inspection team obtained information to evaluate the county of Chesterfield's compliance with the requirements of the permit, under which the county's MS4 system is covered. The permit, included in Attachment 1, has an effective date of 24 March 2003 and an expiration date of 23 March 2008. The EPA inspection team evaluated four permit components; observations regarding the county's implementation of each permit component are presented in the following four subsections. Attachment 3, the Exhibit Log, contains all referenced exhibits, and Attachment 4, the Photograph Log, contains all referenced photographs (additional photographs are available in the inspection record).

III.A. Requirement I.B – Storm Water Management Program

Part I.B of the permit contains requirements for the county to implement and refine a Storm Water Management Program including pollution prevention measures, management or removal techniques, use of legal authority, and other appropriate means to control the quality and quantity of stormwater discharged from the MS4. The staff responsible for the county's Storm Water Management Program include representatives from numerous organizational divisions. Exhibit 1 provides a list of the county's individual program components and the corresponding personnel tasked with their implementation. The EPA inspection team's observations related to this section of the permit are discussed below.

Observation 1. The county of Chesterfield did not maintain a written description of its current Storm Water Management Program.

Part I.B of the permit states that Chesterfield County must "continue implementation, and, where appropriate, refinement of the Storm Water Management Program...The permittee shall implement the provisions of the Storm Water Management Program required under this Part [I.B] as a condition of the permit. All applicable components of the Municipal Separate Storm Sewer System Phase I VPDES Permit Application submitted in accordance with 40 CFR 122.26, and all approved modifications are hereby incorporated by reference into the Storm Water Management Program."

Special Condition C.1 of the permit further requires the county to "ensure that all pollutants discharged from the municipal separate storm sewer system shall be reduced to the *maximum extent practicable [MEP] through the continued development and implementation of a comprehensive Storm Water Management Program* as specified in Part I.B of this permit [emphasis added]." EPA's most recent guidance on the MEP standard is found in the preamble to the final Phase II Storm Water Regulations which states "EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards" (64 *Federal Register* 68754).

The EPA inspection team formally requested "current Storm Water Management Program document—written description of your current MS4 Programs/Program Areas (e.g., MS4 Program Plan)" (Item 1 in Exhibit 2, Team 2 Records Request). However, Chesterfield County produced program description documents that were not reflective of the current Storm Water Management Program. Specifically, the documents were part of Chesterfield County's VPDES Permit Reissuance submittal (Exhibit 3, Permit

Reissuance Description). It should be noted that the *Chesterfield County Annual Stormwater Management and Monitoring Report 2009, VPDES Permit No. VA0088609* (hereafter County Annual Report 2009), includes updates or routine changes associated with the day-to-day operations of the specific components of the Storm Water Management Program. However, Chesterfield County does not maintain a written description of its current MS4 Program. Furthermore, Chesterfield County does not maintain a centralized planning document that describes how the MEP standard will be achieved, or that collects and references the tools (e.g., procedural manuals, database inventories, inspection forms) that are critical to program execution.

EPA recently conducted MS4 inspections of three other Virginia permittees. The EPA inspection team noted that all of these communities had developed MS4 Program Plan documents, likely in response to previous MS4 audits conducted in 2005 by Science Applications International Corporation, as an authorized representative of EPA (hereafter, 2005 MS4 audits). Chesterfield County had not previously undergone an EPA compliance inspection of its MS4 Program, and had not developed a MS4 Program Plan document.

III.B. Requirement I.B.1.a – Structural and Source Control Measures

Part I.B.1.a of the permit contains requirements for the county to utilize structural and source control measures to reduce pollutants in stormwater runoff from commercial and residential areas, which the county addresses through a program herein referred to as its Structural and Source Control Measures Program. Within this program area, the inspection was focused on Parts I.B.1.a(1), (2), and (4) of the permit. State laws such as the Virginian Stormwater Management Law (§ 10-603 et seq. of the Virginia Code), the Virginia Stormwater Management Regulations (4VAC3-20 et seq.), and the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq. of the Virginia Code) provide the underlying regulatory framework for the county's Structural and Source Control Measures Program. The county has promulgated the following ordinances pertaining to development and redevelopment: 1) the Chesterfield County Chesapeake Bay Preservation Ordinance (County Code Chapter 19, Article IV, Division 4, *Chesapeake Bay Preservation Areas*), 2) Chesterfield County Upper Swift Creek Watershed Ordinance (County Code Chapter 19, Article IV, Division 5, *Upper Swift Creek Watershed*), 3) Chesterfield County Floodplain Management Ordinance (County Code Chapter 19, Article III, Division 3, *Floodplain Districts and Dam Break Inundation Zones*), and 4) Chesterfield County Erosion and Sediment Control Ordinance (County Code Chapter 8, *Erosion and Sediment Control*).

The county has also developed a Stormwater Management Best Management Practice (SWM-BMP) manual for the designated Chesapeake Bay Preservation Area, or tidewater area draining to the bay. As indicated in the manual and explained by the County Department of Environmental Engineering Director, the entire county is a Chesapeake Bay Preservation Area. The manual covers topics such as plan submission, design criteria for SWM-BMPs, and water quality compliance calculations for meeting Chesterfield County Chesapeake Bay Preservation Ordinance requirements.

The primary staff responsible for the county's Structural and Source Control Measures Program include representatives of two operational teams within the County Department of Environmental Engineering: the Plans Review Team and Drainage Maintenance Operations Team. The Plans Review Team consists of two Principal Engineers and five Senior Engineers who review development plans for commercial sites and subdivisions for compliance with requirements pertaining to SWM-BMPs, drainage, floodplains, erosion and sediment control, and the county's Chesapeake Bay Preservation and Upper Swift Creek Watershed ordinances.

The county has instituted two SWM-BMP inspection and maintenance schedules that are in effect within Chesterfield County. Commercially-owned SWM-BMPs located outside the Upper Swift Creek watershed are inspected by the owner during the first year after certification and every three years

thereafter. The county utilizes maintenance agreements and/or easements in which the owner is responsible for both inspection and maintenance. Schedules are tracked through a database that determines when necessary maintenance must take place. The county's database also generates letters notifying owners of the need to perform an inspection.

In the Upper Swift Creek watershed, a source water protection area, the Drainage Maintenance Operations Team is responsible for both inspection and maintenance of SWM-BMPs located within residential subdivisions and commercially-owned properties. Inspection and maintenance is conducted using a six-month schedule.

The County Department of Environmental Engineering Administrative Analyst indicated that approximately 460 SWM-BMPs have been implemented in the county. The County Annual Report 2009 explains that a total of 188 SWM-BMPs received routine maintenance by county staff in 2009. Commercial, institutional, and governmental property owners maintained another 276 structures. Additionally, 372 SWM-BMPs were visually inspected by county staff during rain events in 2009 to monitor performance and function of the structures (e.g., risers draining, inflow and outflow conveyances clear).

On the basis of an office discussion and limited records review, no inconsistencies between the county's Structural and Source Control Measures Program and the permit were identified. Chesterfield County appeared to have the components in place which are indicative of a developed and structured program.

III.C. Requirement I.B.1.b – Unauthorized Discharges and Improper Disposal

Part I.B.1.b of the permit contains requirements for unauthorized non-stormwater discharges and improper disposal, which the county addresses through its illicit discharge detection and elimination program, detailed in its *Guidance Document for Field Screening and Detailed Investigation of the Storm Sewer System*, Revised May 21, 2002. The county is currently in the process of updating this document to reflect changes made to its procedures based on Center for Watershed Protection manuals. The Chesterfield County Illicit Discharge Ordinance (County Code Chapter 12, Article V, *Discharges to the Stormwater Sewer System*), prohibits illicit discharges to the MS4. Within this program area, the inspection was focused on dry weather screening inspections and follow up and enforcement.

County staff estimated that hundreds of stormwater outfalls are present in the county. The county has two Dry Weather Screening Inspectors who inspect between 40 and 100 major outfalls (greater than 36") a year. One inspector indicated the county had a set a goal of 80 outfall inspections per year in its application for its next VPDES MS4 permit. Inspections are typically conducted between May and October. County staff indicated that most major outfalls have been visited at least once in the past eight years.

The county prioritizes dry weather screening inspections in heavy commercial areas, areas near lakes which may have retrofit potential, and areas which have not previously been inspected. Inspectors attempt to visit problem areas approximately every three years. County staff have conducted inspections on the Midlothian Turnpike and Hull Street corridor in recent years and plan to inspect outfalls along Route 1 in 2010.

After identifying the area to inspect, the County Dry Weather Screening Inspectors take the county storm sewer maps of the region, as well as a HydroLab (an immersible probe that provides instantaneous readings of dissolved oxygen, pH, conductivity, total dissolved solids, temperature and depth), manhole puller, and blank "Outfall Reconnaissance Inventory/Sample Collection Field Sheets" (outfall field sheet) to the inspection site. An example of a completed outfall field sheet is provided as Exhibit 4, Outfall 760-701-01 Field Sheet. An outfall field sheet is completed for each outfall inspected. If the County Dry Weather Screening Inspectors identify outfalls not currently represented on the storm sewer map, one of

the inspectors will draw and label the outfalls on the map. County staff indicated that the outfalls would later be added to the county's GIS database.

The county sends two inspectors to complete each outfall inspection. During the inspection, the inspectors work together to complete the basic outfall information portion of the inspection form, survey the outfall's condition, and take photos. The inspectors also note whether the outfall has the potential for a SWM-BMP retrofit. If enough water is present, the inspectors submerge the HydroLab to measure dissolved oxygen, pH, conductivity, total dissolved solids, temperature and depth. The inspectors also collect a sample to test in the county's onsite laboratory.

If problems are noted during the inspection, the inspectors record them on the inspection report and may take follow up actions. If illicit discharges are suspected, the inspectors track the source upstream and attempt to remedy the problem at the time of inspection. If infrastructure or clogging problems are noted, the inspectors send an email to the County Drainage Superintendent for resolution. The Drainage Superintendent does not notify the inspectors after the problem has been resolved. Outfalls where problems are present are tagged as "unhealthy" in the county's tracking database. The inspectors indicated that the "unhealthy" tag alerts the inspectors that a reinspection is necessary. After identifying that a revisit is necessary, the inspectors use the paper maps and paper inspection reports to determine whether revisit has been completed and to note observations during reinspections. The county is currently streamlining this process by transferring the records into the county's GIS database.

Observation 2. The county of Chesterfield was not providing adequate resources to complete annual dry weather screening inspections of identified outfalls.

Part I.C.4 of the permit requires that Chesterfield County "provide adequate finances, staff, equipment and support capabilities to implement all parts of the Storm Water Management Program required by Part I.B of this permit." Currently, MS4 staff have identified outfalls in both industrial and commercial areas, but due to a lack of staff, these outfalls are screened during dry weather every 2 to 3 years. Based on observations made by the EPA Inspection Team and discussions with Chesterfield County MS4 staff, Chesterfield County needs two additional trained field technicians to perform outfall screening in industrial and commercial areas as required by Part I.B.1.b(2) of the permit. However, Chesterfield County has no current plans to hire these technicians due to budget constraints.

Additionally, because of the current burden placed on MS4 staff, incorporating and updating outfall locations and storm sewers in the county's GIS database is not complete. The county is in the process of transferring paper maps into a universal GIS database that can be used by all Chesterfield County departments involved with the MS4. However, the mapping project is currently a side project of the water quality analyst who is also responsible for outfall inspections, development and revision of standard operating procedures, records management, statistics, stream assessments, and minor pollution complaint response. Discussions with the water quality analyst indicated one additional staff member is needed for timely completion of this task; that staff member would be devoted to updating GIS maps with outfall information including location, outfall descriptions, maintenance requests, and outfall inspection data. However, Chesterfield County has no current plans to hire this staff member.

Observation 3. The county of Chesterfield was not completing and documenting follow up action taken after evidence of an illicit discharge was observed.

An outfall field sheet for outfall 760-701-01 completed on August 13, 2009 indicated that rancid grease was present in the outfall and investigation was necessary to determine the source (Exhibit 4, Outfall 760-701-01 Field Sheet). The EPA inspection team formally requested documentation of follow up activity at this outfall (Exhibit 5, Team 1 Email Request). One of the dry weather screening inspectors present during the inspection stated that a restaurant was located upstream of the outfall and described the actions

taken immediately after the issue was identified (Exhibit 6, Outfall 760-706-01 Follow Up). The County Dry Weather Screening Inspectors spoke to the manager of the restaurant after inspecting the outfall and determined that the restaurant had cleaned its dumpster and dumpster pad a few weeks prior. One of the inspectors informed the manager that wash water should not enter the storm drain and provided the restaurant with his contact information and a copy of the industry guide to illicit discharge. The inspector stated that no documentation of the immediate follow up action was available and that no reinspections had occurred (Exhibit 6, Outfall 760-706-01 Follow Up). Without reinspection and documentation of follow up actions, the county cannot confirm that the outfall has been cleaned and that illicit discharges have ceased as required by Part I.B.1.b(3) of the permit.

Additionally, Part I.B of the permit requires the permittee to “reduce the discharge of pollutants from the municipal separate storm sewer system to the maximum extent practicable.” However, the county does not consistently verify that maintenance needs for MS4 outfalls, identified through the outfall inspections, are addressed. County staff indicated that maintenance needs including debris and structural damage are emailed to the County Drainage Superintendent; however, the superintendent does not notify the water quality staff who are responsible for tracking the outfall conditions, after the maintenance issue has been addressed. Also, the inspectors do not notify the County Drainage Superintendent to clean outfalls after potential illicit discharges are identified, as in the case of outfall 760-706-01 described previously. This prevents the county from ensuring that pollutant discharges are reduced to the maximum extent practicable.

III.D. Requirement I.B.1.c – Runoff from Industrial and Commercial Facilities

Part I.B.1.c of the Permit contains requirements to monitor and control pollutants in stormwater discharges from certain industrial and commercial facilities. Within this program area, the inspection was focused on industrial and commercial facility identification and prioritization, inspections, and county industrial facility stormwater management.

III.D.1. Identification and Prioritization of Industrial and Commercial Facility Inspections

The county has developed the framework for an industrial inspection program. Included in the Chesterfield County industrial inspection program is the “Industrial Facility Inspection Protocol” which identifies the categories of facilities to be inspected, a prioritization scheme to select facilities for inspection, and the inspection frequency for each priority level.

The county has developed a list of all industrial and commercial facilities in Chesterfield County. The list contains approximately 334 facilities all of which are subject to industrial inspections under the “Industrial Facility Inspection Protocol” (Exhibit 7, Industrial Facility Inspection Protocol). Chesterfield County updates the list continually based on economic development information and VPDES permits.

Each facility is assigned an inspection priority category between 1 and 5. Category 1 facilities pose the least risk to the environment and do not require inspections but are maintained in the database for tracking purposes. Category 2 and 3 facilities have the potential for illicit discharges and require inspections on an as needed basis. Category 4 and 5 facilities have one or more of the following characteristics:

- Have an NPDES/VPDES permit,
- Are categorized under SARA Title III,
- Handle or create hazardous waste as a byproduct of their manufacturing process,
- Store hazardous materials, or
- Operate a municipal landfill.

These facilities pose the greatest environmental risk and require annual inspections.

III.D.2. Industrial and Commercial Facility Inspections

Chesterfield County derives its authority to conduct industrial and commercial inspections from Section 12-63 of the County Illicit Discharge Ordinance (Exhibit 8, Illicit Discharge Ordinance). The ordinance states that the county has “the authority to inspect and monitor discharges and sources of potential discharge to the storm sewer system to ensure compliance with this article, including the authority to enter upon private property to inspect or monitor such discharges or sources of potential discharge.”

While the county has the authority to conduct inspections, routine inspections have not been performed since the industrial inspector position was eliminated in 2005 due to budget constraints. County staff indicated that, due to the lack of resources, industrial inspections are only conducted as a result of a citizen complaint, if observations provided by the other county agencies warrant an inspection, or when an illicit discharge is detected during an outfall inspection. In 2009, nine inspections were conducted in response to citizen complaints. County inspectors including fire code inspectors, zoning inspectors, and industrial pretreatment inspectors all conduct regular inspections and may notify the Water Quality staff if stormwater issues are observed during their inspections. The county offers a stormwater class two to three times a year, but not all county personnel who may be involved in identifying stormwater issues are required to attend the class. The class includes basic information on common stormwater pollutants and practices to minimize pollutant discharges to the storm sewer system; however, the class does not identify stormwater issues and requirements specific to industrial and commercial sites.

The county’s “Industrial Facility Inspection Protocol” describes the facility information that should be reviewed prior to conducting an inspection. It also instructs the inspector to visually inspect the outfalls and storm drains on site and to conduct field testing using the HydroLab where dry weather flows are observed. The County Water Quality Manager described the typical steps taken during the inspection. The inspector first meets with the plant manager or the environmental supervisor and reviews the permits and stormwater pollution prevention and spill control and prevention plans. Next, an inspection of the internal areas is conducted focusing on floor drains and potential hot spots. The inspector takes photos and makes notes on a map of the facility. Outside the facility, the inspector notes impervious cover, uncovered storage areas, and vehicles in disrepair. The county has also developed industrial facility inspection forms that the inspector would use to record all pertinent information during the inspection. After an inspection is completed, the inspector uses the inspection form, his field notes, and his photos to write a memorandum to the facility describing the inspection and identifying corrective actions. The county has the ability to issue Notices of Violation if corrective actions are not completed.

Observation 4. The county of Chesterfield did not have an industrial inspector to complete the inspections required by Part I.B.1.c(1) and I.B.1.c(2) of the permit.

Part I.C.4 of the permit requires that Chesterfield “provide adequate finances, staff, equipment and support capabilities to implement all parts of the Storm Water Management Program required by Part I.B of this permit.” While Part I.B.1.c(1) and I.B.1.c(2) require inspections of industrial and commercial facilities identified by the county, the industrial inspector position was eliminated in 2005 due to county budget constraints and this position remains vacant. Routine industrial inspections have not been performed in nearly 5 years.

On April 22, 2010, during an inspection of service drive areas and trash collection areas behind a grocery store, department store (Kmart), and home improvement store (Lowe’s) located along Jefferson Davis Highway, the EPA inspection team noted grease, paint stains, and trash being discharged to the MS4. Stormwater outfalls from these particular locations had not been previously inspected by the county and the Chesterfield County inspector accompanying the EPA inspection team stated that these observations would trigger an industrial inspection. Currently, it is unknown if an industrial inspection was initiated at these locations. The EPA inspection team formally requested documentation of the industrial inspection;

however, documentation has not yet been provided (Exhibit 9, Team 1 Email Industrial Inspection Records Request). Discussions with Chesterfield County MS4 staff indicated that ideally, two additional staff would be needed to fully implement the industrial inspection program. One inspector would be responsible for high priority facilities (designated as categories 4 or 5) and the other would inspect all other facilities (categories 1 through 3). However, Chesterfield County has no current plans to hire these staff members.

Observation 5. The county of Chesterfield did not have a formal training program for identifying stormwater issues on industrial and commercial sites.

County staff indicated that while they do not have an industrial stormwater inspector, other county departments, including Fire & EMS, Industrial Pretreatment, and Zoning, all conduct inspections and notify Water Quality when stormwater issues are noted. However, not all departments require staff to be trained on the identification of stormwater issues. The county offers a stormwater class, but not all county personnel who may be involved in identifying stormwater issues are required to attend the class. Without standardized training requirements, the county cannot consistently identify stormwater issues to “monitor and control pollutants in storm water discharges” from industrial and commercial facilities as required by Part I.B.1.c of the permit.

III.D.3. County-owned Industrial Facilities

Site: Chesterfield County Fleet Maintenance Facility – 9700 Lori Lane, Chesterfield, VA

On April 21, 2010, the EPA inspection team visited the County Fleet Maintenance Facility. The facility is International Organization of Standardization (ISO) 14001 certified. The inspection began inside the garage, proceeded to the parking and damaged vehicle storage area, and also included the vehicle wash rack and the storm ditch near the front of the property. A portion of the site near the wash rack was under construction. During the site visit, the EPA inspection team observed the following:

- An uncovered garbage truck containing trash was located on site near a drainage swale in the lot.
- A police vehicle with the hood removed, exposing the battery, radiator, and brake-fluid housing to precipitation was located on the unpaved portion of the parking area.
- Sediment had accumulated in the corner of the paved parking lot.
- A silt fence protecting the MS4 drainage channel from the construction area was undermined (Photographs 1 and 2). It appeared that the silt fence had been placed in the path of concentrated flow. Sediment was present in the channel.

Observation 6. The county of Chesterfield was not adequately minimizing pollutant discharges from county industrial facilities.

Part I.C.1 of the permit states that "the permittee shall ensure that all pollutants discharged from the municipal separate storm sewer system shall be reduced to the maximum extent practicable." An inspection of the vehicle maintenance lot found that a garbage truck containing open trash had been parked adjacent to a drainage swale in the lot, and water was flowing past the garbage truck to an offsite location. The garbage truck appeared to be waiting for maintenance. In addition, one vehicle was observed with the hood removed, exposing the battery, radiator, and brake-fluid housing to precipitation. Although the county-owned vehicle maintenance facility is ISO 14001 certified and appears to have good house-keeping measures to prevent release of fluids to the MS4, additional attention should be given to vehicles placed in the county's lot waiting for service.

III.E. Requirement I.B.1.d – Runoff from Construction Sites

Part I.B.1.d of the permit requires a program to implement and maintain structural and nonstructural best management practices to reduce pollutants in stormwater runoff from construction sites, which the county addresses through a program referred to as its Erosion and Sediment Control (ESC) Program. The County ESC Program components and applicable requirements related to this section of the permit are discussed below.

The primary staff responsible for the county’s ESC Program include representatives of two operational teams within the County Department of Environmental Engineering: the Plans Review Team and Field Construction Inspections Team. The Plans Review Team is comprised of the same staff used in the county’s Structural and Source Control Measures Program. The Field Construction Inspections Team is led by the County ESC Program Administrator and is organized into two teams (i.e., Team A and Team B), each with an ESC Inspection Supervisor and four ESC inspectors which are assigned to geographic areas (i.e., Areas 1 through 8). The ESC inspectors conduct inspections pursuant to the Virginia Erosion and Sediment Control Regulations. The Virginia Erosion and Sediment Control Regulations, 4VAC50-30-60B, Maintenance and inspections, requires Chesterfield County to “provide for an inspection during or immediately following initial installation of erosion and sediment controls, at least once in every two-week period, within 48 hours following any runoff producing storm event, and at the completion of the project prior to the release of any performance bonds.”

Additionally, the County Department of Environmental Engineering has enlisted the assistance of the Building Inspections Department to conduct ESC inspections in conjunction with its building inspections of single-family dwellings. Building Inspections Department staff who conduct ESC inspections have received training through the DCR training and certification program. The Building Inspections Department staff are utilized to maintain a field presence and identify ESC issues at construction sites. The County Department of Environmental Engineering’s dedicated ESC inspectors are used to conduct follow-up and obtain corrective action for the issues identified by Building Inspections Department staff at construction sites involving single family homes.

The county uses the Program Administration Status System (PASS), a land development program database, to maintain records pertaining to both the Structural and Source Control Measures Program and the ESC Program. Specifically, PASS is used to maintain records associated with state mandated requirements for plan review, project inspection activities and frequency, and regulatory performance reporting. In 2009, the departments of Environmental Engineering and Information Systems Technology collaborated in the development of the PASS interface, which is designed for staff to enter information about projects, permits, and sureties and also view that information as part of the Department of Environmental Engineering’s processes.

Observation 7. The county of Chesterfield had not developed standard procedures for consistent and progressive escalation of its available enforcement actions based on inspection observations.

Part I.B.1.d of the permit requires a “program to continue implementation and maintenance of structural and nonstructural best management practices to reduce pollutants in storm water runoff *from* construction sites [emphasis added].”

The EPA inspection team observed that the county differentiates between what it considers to be a violation of local code and a discrepancy. PASS, for example, provides separate interface tabs for entering a discrepancy and entering a violation (Exhibit 10, PASS screenshot). The EPA inspection team questioned County Department of Environmental Engineering staff to determine how a discrepancy gets elevated to a violation (Exhibit 11, PASS permit status). The County ESC Program Administrator

explained that the county does not consider construction site operators to be in violation of local code until the operator has been issued a notice to comply, and the operator then fails to meet the timeframe for corrective action specified in the notice to comply. For example, a notice to comply dated August 12, 2009, lists a number of “deficiencies” and states “failure to comply within the time specified above will result in the issuance of a civil penalty” (Exhibit 12, Magnolia Lakes notice to comply). The County ESC Program Administrator further indicated that the county does not have an enforcement response plan or guide, and that enforcement is a discretionary process. Enforcement response plans typically provide clear guidelines for consistent and progressive escalation of the available enforcement actions based on inspection observations, particularly as it relates to recurring issues, repeat violations, and recalcitrant site operators. In contrast, the *Chesterfield County Inspectors Reference Manual* (hereafter, County ESC Inspection Manual), Section 6.0, describes a civil penalties process that begins with the inspector observing non-compliance, rather than at the initial step of identifying a discrepancy.

The EPA inspection team also questioned County Department of Environmental Engineering staff to determine what types of erosion and sediment control issues qualify as a violation of county code. The County ESC Program Administrator and ESC Inspection Supervisor for Team A indicated that they could not recall a situation that was an immediate violation of county code, and that a sediment release from a construction site is handled the same as any other type of “discrepancy.” Therefore, in the event of a sediment release, construction site operators would not be found in violation of local code until the operator has been issued a notice to comply, and the operator then failed to meet the timeframe for corrective action specified in the notice to comply. In other words, the County ESC Inspectors would provide construction site operators with the opportunity to correct a sediment release to the MS4, rather than qualifying the matter as an immediate violation of county code. Under this approach, Chesterfield County does not consider each construction site boundary as a point of operational control to reduce pollutants in stormwater runoff from construction sites, particularly in the event of a sediment release or discharge from a construction site.

As evidenced below, the EPA inspection team observed an example of this approach at a county school district construction site. Specifically, the EPA inspection team witnessed an inspection of Clover Hill High School, Genito Road (County Land Disturbance Permit No. 202868) performed by the County ESC Inspector for Area 7. During the EPA inspection team’s site visit on April 22, 2010, it was observed that silt fence and stone installed in an area of concentrated flow along Old Hundred Road had failed (Photographs 3 through 6), and sediment had been discharged from the construction site boundary (Photographs 4, 5, 7, and 8) through a drainage culvert leading under Old Hundred Road (Photographs 9 and 10). The County ESC Inspector for Area 7 did not identify this issue while on site. Both of the County ESC Inspection Supervisors (Team A and Team B) were present during the site visit, but did not express that the sediment discharged from the construction site boundary was an actionable deficiency.

Subsequent to the MS4 Inspection, the EPA inspection team reviewed the county’s inspection files containing county inspection records and follow-up responses for three construction sites that were visited as part of the MS4 Inspection. The specific county inspection records obtained and reviewed were the following: (a) Clover Hill High School, Genito Road (County Land Disturbance Permit No. 202868) records from September 16, 2009 to March 30, 2010; (b) Magnolia Lakes (County Land Disturbance Permit No. 202732) records from August 11, 2009 to November 13, 2009; and (c) Swift Creek Middle School Auditorium Addition (County Land Disturbance Permit No. 300085) records from November 3, 2009 to April 6, 2010. Collectively, 33 county ESC inspections were conducted at the three construction sites during the above-specified time periods. None of the 33 county ESC inspections identified a sediment discharge beyond the construction site boundary as an actionable discrepancy or violation. In contrast, the EPA inspection team observed sediment that had been discharged beyond the construction site boundary at both Clover Hill High School, Genito Road and Magnolia Lakes (see Observation 9 below for additional details).

In multiple inspection reports for the Clover Hill High School, Genito Road construction site, the County ESC Inspector for Area 7 indicated “site not stabilized as required” and qualified these issues as discrepancies, but the inspection records did not show progressively stricter enforcement for similar and/or recurring discrepancies (Exhibit 13, Clover Hill High School PASS Inspection). Furthermore, these inspection records did not have sufficient detail to demonstrate that specific corrective actions were taken, and appropriate follow-up enforcement responses were conducted.

Observation 8. The county of Chesterfield ESC inspectors did not assess non-sediment, construction site pollutant sources.

Part I.B.1.d of the permit requires a “program to continue implementation and maintenance of structural and nonstructural best management practices [i.e., temporary construction site BMPs] to reduce *pollutants* in storm water runoff from construction sites [emphasis added].”

In contrast to this requirement, the County ESC Inspectors have not been tasked with assessing construction site pollutant sources other than sediment-generating sources. The County ESC Inspection Supervisor for Team A explained that the County ESC Inspectors can only enforce the Chesterfield County Erosion and Sediment Control Ordinance under authority granted by the Virginia Erosion and Sediment Control Law. The Virginia Erosion and Sediment Control Regulations (4VAC50-30) have been promulgated to administer, implement, and enforce the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq. of the Virginia Code). However, the Virginia Erosion and Sediment Control Regulations pertain only to “erosion and sediment control concerns,” and mandate the adoption of erosion and sediment control programs by localities, which dictates the scope of the local program (Exhibit 14, VESCR). Section 8-1.1 of the Chesterfield County Erosion and Sediment Control Ordinance states “pursuant to Va. Code § 10-562, Chesterfield County adopts the Virginia Erosion and Sediment Control Regulations as the authority that governs the county’s local erosion and sediment control program.” Accordingly, the county’s inspection checklist does not include a non-sediment component or question set, and the PASS database system does not track non-sediment deficiencies at construction sites (Exhibit 15, PASS Inspections Checklist).

The EPA inspection team conducted site visits at the following three construction sites located in the jurisdictional boundaries of the county and/or served by the county’s MS4: 1) Clover Hill High School, Genito Road (County Land Disturbance Permit No. 202868), 2) Magnolia Lakes (County Land Disturbance Permit No. 202732), and 3) Swift Creek Middle School Auditorium Addition (County Land Disturbance Permit No. 300085). At two of the three construction sites, the EPA inspection team observed deficiencies pertaining to non-sediment pollutants such as construction chemicals, fertilizers, and fuels.

At Clover Hill High School, Genito Road, a county school district construction site, pallets of soil amendments were stored outdoors without overhead coverage (Photograph 11). The soil amendments included lime and fertilizers. One bag of fertilizer was open and the contents were wet, indicating that the soil amendments had been exposed to stormwater contact (Photographs 12 and 13). In addition, a partially-filled container of concrete chemical was stored outdoors without overhead coverage (Photograph 14).

At the Swift Creek Middle School Auditorium Addition, another county school district construction site, diesel residues were present on a fuel tank (Photograph 15). Although the fuel tank was placed in a secondary containment tub, it had accumulated standing water (Photograph 16). Standing water has the potential to increase stormwater contact with pollutants, particularly during fueling and loading operations. Additionally, a partially-filled container of concrete chemical was stored outdoors without overhead coverage (Photograph 17).

During the closing conference, the EPA inspection team had a dialogue with the county on the possibility of addressing non-sediment pollutants through the County Illicit Discharge Ordinance and empowering the County ESC Inspectors to assess non-sediment construction site pollutant sources such as: construction chemicals; vehicle and equipment maintenance and fueling; paving and grinding; spill prevention and control; solid waste; concrete waste and wash water; and sanitary/septic waste (e.g., portable toilets).

Observation 9. The county of Chesterfield’s plan review and approval, field inspection, and plan change processes were not in accordance with the Chesterfield County Erosion and Sediment Control Ordinance for the Magnolia Lakes construction site.

Part I.B.1.d(1) of the permit requires Chesterfield County to “continue to implement the requirements of the Erosion and Sediment Control Ordinance for land disturbing activities.” The Chesterfield County Erosion and Sediment Control Ordinance requires all applicants for county land-disturbance permits to submit an erosion and sediment control plan for review and approval by the county.

Section 8-7 of the Chesterfield County Erosion and Sediment Control Ordinance states “an approved [ESC] plan may be changed by the plan-approving authority when: (a) an inspection reveals that the plan is inadequate to control erosion and sedimentation and to satisfy applicable laws and/or regulations; or (b) the responsible land disturber finds that because of changed circumstances or other reasons the approved plan cannot be effectively carried out, and proposed amendments to the plan, consistent with the requirements of this chapter [Chapter 8, Erosion and Sediment Control], are agreed to by the plan-approving authority [Chesterfield County].”

The EPA inspection team conducted a site visit at the Magnolia Lakes (County Land Disturbance Permit No. 202732) construction site located in the jurisdictional boundaries of the county and/or served by the county’s MS4. Several issues were observed at the Magnolia Lakes construction site which indicated deficient application of the county’s plan review and approval, field inspection, and plan change processes. These issues are discussed below.

Sheet No. C21 of the county-approved Magnolia Lakes ESC Plan, Phase 2 specifies the implementation of temporary Sediment Basin #4, and that “all disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved” (Exhibit 16, Sheet C21). The criteria for final stabilization through the use of a permanent vegetative cover are specified in the Minimum Standards of the Virginia Erosion and Sediment Control Regulations (4VAC50-30-40). Minimum Standard No. 3 states “a permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized [e.g., paved]. Permanent vegetation shall not be considered established until a ground cover is achieved that is *uniform, mature enough to survive, and will inhibit erosion* [emphasis added].”

In contrast to Minimum Standard No. 3, the EPA inspection team observed that the intended contributing area to Sediment Basin #4 had not achieved final stabilization with permanent vegetation, and denuded areas were not otherwise permanently stabilized. Specifically, a uniform vegetative cover was not established, and rill and gully erosion was observed in the contributing area (Photographs 18 through 20). The County ESC Inspector for Area 5 indicated that the site had been seeded multiple times, but the site operator had difficulty getting the seed established.

Although the county-approved Magnolia Lakes ESC Plan, Phase 2 specifies the implementation of temporary Sediment Basin #4, and that “all disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved,” Sediment Basin #4 had been removed and/or filled-in. Photograph 21 shows the general area

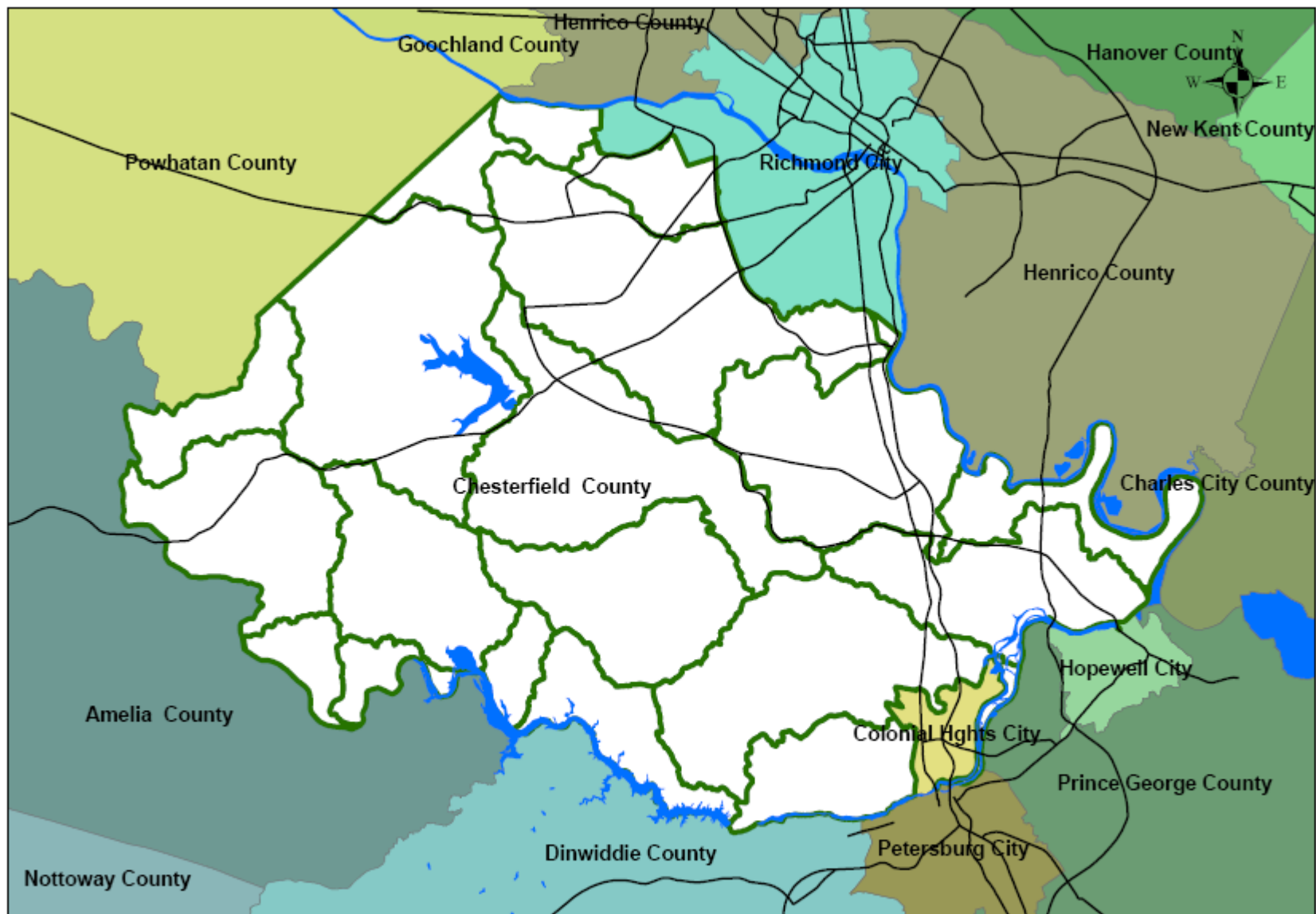
where the former Sediment Basin #4 had been located. The County ESC Inspector for Area 5 explained that he had approved the removal of Sediment Basin #4 based on an assessment of stabilization. The most recent county ESC inspection was conducted on November 13, 2009. The ESC Inspection Supervisor for Team B explained that the site had been idle for some time, and the November 13, 2009 inspection was the most recent because the operator had just recently been issued a building permit for vertical construction.

Section 8-5 of the Chesterfield County Erosion and Sediment Control Ordinance states that the county has the right to enter property having a land-disturbance permit “for the purpose of inspecting the property to determine whether the requirements of this chapter [Chapter 8, Erosion and Sediment Control] and of the approved erosion and sediment control plan are being met.” In his November 13, 2009 inspection report, the County ESC Inspector for Area 5 indicated “all denuded areas stabilized as required” and “all required structural control practices installed properly” (Exhibit 17, Magnolia Lakes PASS Inspection). However, this was not the case at the time of the EPA inspection team’s site visit on April 22, 2010. According to the ESC Inspection Supervisor for Team B, the removal of Sediment Basin #4 had been approved by the County ESC Inspector for Area 5 in a phone conversation and had not been formally documented. Based on this body of evidence, the change in the county-approved ESC plan was not carried out in accordance with Section 8-7 of the Chesterfield County Erosion and Sediment Control Ordinance.

Moreover, the EPA inspection team observed a demonstrated need for the former Sediment Basin #4. Specifically, an eroded flow pathway was observed leading from the former Sediment Basin #4 contributing area (Photographs 21 and 22). Sediment had accumulated in a down-gradient area where rock had been placed, which was likely the former Sediment Basin #4 outlet location (Photograph 23). Sections of the silt fence down-gradient of the former Sediment Basin #4 had collapsed, and sediment was observed beyond the silt fence (Photographs 24 through 26). Due to the removal of Sediment Basin #4 and the collapsed silt fence, there was a resulting discharge of sediment beyond the construction site boundary.

Additionally, a turbidity curtain had been installed approximately 75 feet down-gradient of the former Sediment Basin #4 outlet, in the receiving waterbody referred to as Sportsman Lake (Photograph 27). In another area of the site, a second turbidity curtain had been installed approximately 50 feet down-gradient of the existing Sediment Basin #1 outlet, in Sportsman Lake (Photographs 28 and 29). Part I.B.1.d(1) of the permit requires Chesterfield County to “continue to implement the requirements of the Erosion and Sediment Control Ordinance for land disturbing activities.” Section 8-6(d) of the Chesterfield County Erosion and Sediment Control Ordinance states “the [county] environmental engineer shall require all erosion and sediment control plans to comply with the conservation standards and specifications contained in the Virginia Erosion and Sediment Control Handbook before they are approved.” Sheet No. C21 of the county-approved Magnolia Lakes ESC Plan, Phase 2 specifies the implementation of turbidity curtains in these locations (Exhibit 16, Sheet C21). In contrast, the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992, Standard and Specification 3.27, Turbidity Curtain, states that turbidity curtains are applicable “where intrusion into the watercourse by construction activities and subsequent sediment movement is unavoidable.” Site conditions observed by the EPA inspection team did not suggest that intrusion into Sportsman Lake was unavoidable. As a result, the county-approved Magnolia Lakes ESC Plan was not in accordance with Section 8-6(d) of the Chesterfield County Erosion and Sediment Control Ordinance.

Attachment 2 - Jurisdictional Map

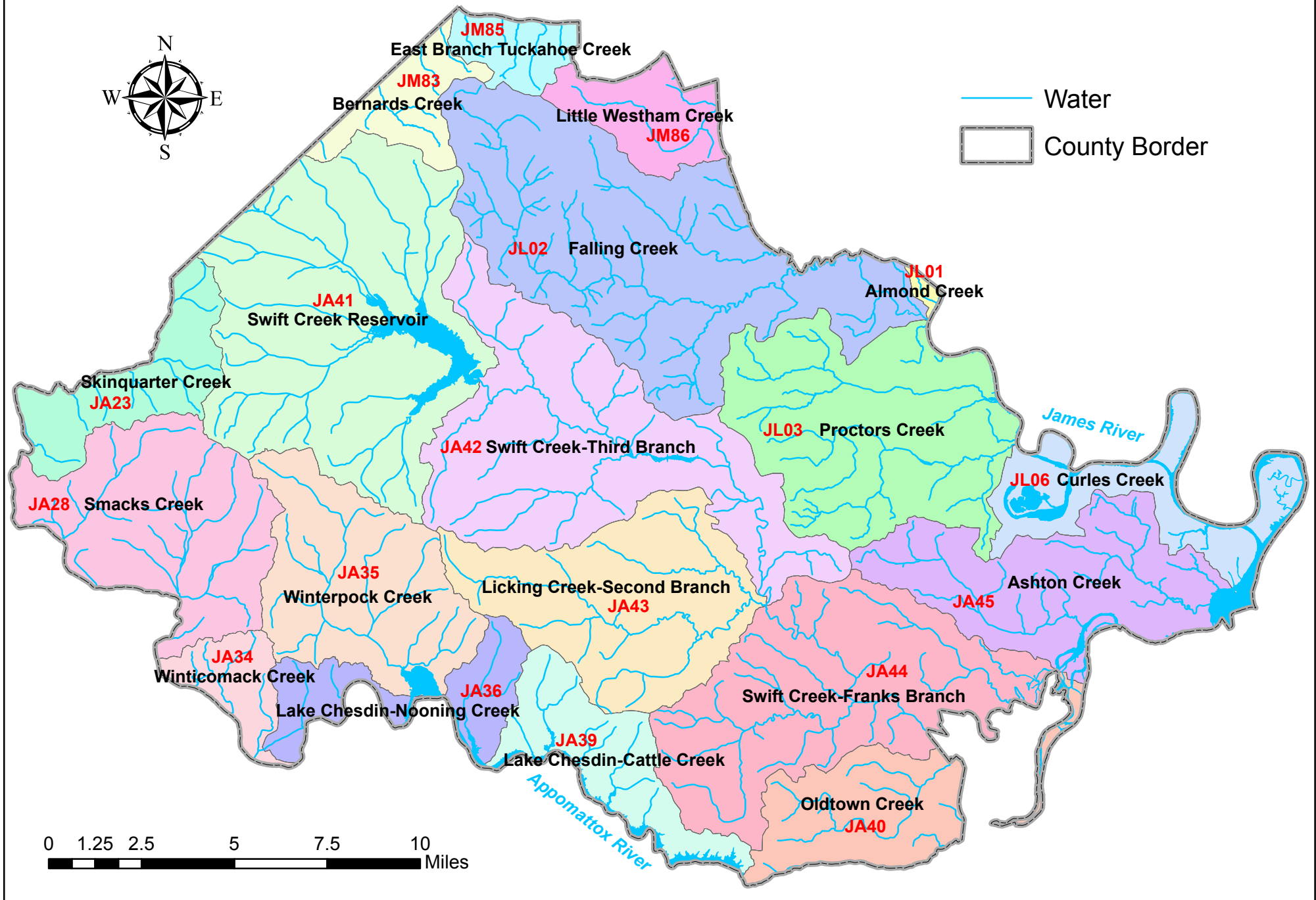


**Chesterfield County
Locational Map**

Legend

-  VAHUB Boundaries
-  Major Waters
-  Major Roads

Chesterfield County 6th Order Hydrologic Units



Attachment 3 - 303(d) Listed Segments with an approved TMDL

TMDL Name	EPA Approval	Report Location	Water Body	Location	Pollutant	WLA	units	Comment
TMDL for Appomattox River	8/30/2004	Final report	Appomattox River (1)		E.coli	6.64E+09	Cfu/yr	
			Appomattox River (2)			2.07E+11	Cfu/yr	
			Appomattox River (3)			1.14E+13	Cfu/yr	
			Swift Creek (1)			8.37E+09	Cfu/yr	
			Swift Creek (2)			1.84E+11	Cfu/yr	
			Swift Creek (3)			2.38E+11	Cfu/yr	
Bacterial TMDL for the James River and Tributaries – City of Richmond	11/4/2010	Final report	Reedy Creek		E.coli	2.60+E12	Cfu/yr	Aggregated with adjacent VDOT MS4 load
			James River (Lower)	VAP-H39R-08		1.98E+13	Cfu/yr	
			Falling Creek			1.36E+13	Cfu/yr	
			James River (Lower) delisted	VAP-H39R-08		2.74E+13	Cfu/yr	
			James River (tidal)	VAP-G01E-01		2.65E+12	Cfu/yr	
			No Name Creek			3.27E+11	Cfu/yr	
			James River (upper) delisted	VAP-H39R-11		1.46E+12	Cfu/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	APPTF	Nitrogen	62,108.7	Lbs/yr	
					Phosphorus	13,646.2	Lbs/yr	
					Sediment	14,343,323.78	Lbs/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	JMSTF1	Nitrogen	954.87	Lbs/yr	
					Phosphorus	216.6	Lbs/yr	
					Sediment	37,241.25	Lbs/yr	
Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment	12/29/2010	Final Report	Chesapeake Bay	JMSTF2	Nitrogen	171,268.55	Lbs/yr	
					Phosphorus	30,450.46	Lbs/yr	
					Sediment	3,976,073.90	Lbs/yr	

Attachment 4 - NPDES Rating Worksheet

NPDES PERMIT RATING WORK SHEET

NPDES NO. VA0088609

Facility Name: Chesterfield County MS4

City: Chesterfield County

Receiving Water:

Appomattox River – Skinquarter Creek (JA23)
Appomattox River – Winterpock Creek (JA34)
Lake Chesdin – Nooning Creek (JA36)
Appomattox River – Old Town Creek (JA40)
Swift Creek – Third Branch (JA42)
Swift Creek – Franks Branch (JA44)
James River - Almond Creek (JL01)
James River - Proctors Creek (JL03),
Lower James River – Bailey Creek (JL07)
James River - East Branch Tuckahoe Creek (JM85)

Appomattox River – Smacks Creek (JA28) Winterpock Creek (JA35)
Lake Chesdin – Cattle Creek (JA39)
Swift Creek Reservoir (JA41)
Licking Creek – Second Branch (JA43)
Appomattox River - Ashton Creek (JA45)
Falling Creek (JL02)
Lower James River – Curles Creek (JL06)
James River Bernards Creek (JM83)
Little Westham Creek (JM86)

- ☒ Regular Addition
☐ Discretionary Addition
☐ Score change, but no status change
☐ Deletion

Reach Number: 1o, 1p, 4a, 5, 5a, 5b, 6, 8, 9

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
 2. A nuclear power plant
 3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate
- ☐ YES; score is 600 (stop here) ☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

- ☒ YES; score is 700 (stop here)
☐ NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: 9199 Primary SIC Code: _____ Other SIC Codes: _____
Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No Process Waste Streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: _____

Total Points Factor 1: NA

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A ☐ Wastewater Flow Only Considered

Wastewater Type (See Instructions)	Code	Points
Type I: Flow < 5 MGD <input type="checkbox"/>	11	0
Flow 5 to 10 MGD <input type="checkbox"/>	12	10
Flow > 10 to 50 MGD <input type="checkbox"/>	13	20
Flow > 50 MGD <input type="checkbox"/>	14	30
Type II: Flow < 1 MGD <input type="checkbox"/>	21	10
Flow 1 to 5 MGD <input type="checkbox"/>	22	20
Flow > 5 to 10 MGD <input type="checkbox"/>	23	30
Flow > 10 MGD <input type="checkbox"/>	24	50
Type III: Flow < 1 MGD <input type="checkbox"/>	31	0
Flow 1 to 5 MGD <input type="checkbox"/>	32	10
Flow > 5 to 10 MGD <input type="checkbox"/>	33	20
Flow > 10 MGD <input type="checkbox"/>	34	30

Section B ☐ Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Percent of instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10 % <input type="checkbox"/>	41	0
	10 % to < 50 % <input type="checkbox"/>	42	10
	> 50 % <input type="checkbox"/>	43	20
Type II:	< 10 % <input type="checkbox"/>	51	0
	10 % to < 50 % <input type="checkbox"/>	52	20
	> 50 % <input type="checkbox"/>	53	30

Code Checked from Section A or B: _____

Total Points Factor 2: NA

FACTOR 3: Conventional Pollutants*(only when limited by the permit)*A. Oxygen Demanding Pollutant: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)		<input type="checkbox"/>	< 100 lbs/day	1	0
		<input type="checkbox"/>	100 to 1000 lbs/day	2	5
		<input type="checkbox"/>	> 1000 to 3000 lbs/day	3	15
		<input type="checkbox"/>	> 3000 lbs/day	4	20

Code Checked: _____

Points Scored: _____

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	<input type="checkbox"/>	< 100 lbs/day	1	0
	<input type="checkbox"/>	100 to 1000 lbs/day	2	5
	<input type="checkbox"/>	> 1000 to 5000 lbs/day	3	15
	<input type="checkbox"/>	> 5000 lbs/day	4	20

Code Checked: _____

Points Scored: _____

C. Nitrogen Pollutant: (check one) ☐ Ammonia ☐ Other: _____

		<i>Nitrogen Equivalent</i>	<i>Code</i>	<i>Points</i>
Permit Limits: (check one)	<input type="checkbox"/>	< 300 lbs/day	1	0
	<input type="checkbox"/>	300 to 1000 lbs/day	2	5
	<input type="checkbox"/>	> 1000 to 3000 lbs/day	3	15
	<input type="checkbox"/>	> 3000 lbs/day	4	20

Code Checked: _____

Points Scored: _____

Total Points Factor 3: NA**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

☐ YES (If yes, check toxicity potential number below)☒ NO (If no, go to Factor 5)

Determine the *human health* toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column ☐ check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> Process Waste Streams								
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: _____

Total Points Factor 4: NA

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge:*

<input type="checkbox"/>	Yes	Code 1	Points 10
<input type="checkbox"/>	No	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

<input type="checkbox"/>	Yes	Code 1	Points 0
<input type="checkbox"/>	No	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

<input type="checkbox"/>	Yes	Code 1	Points 10
<input type="checkbox"/>	No	2	0

Code Number Checked: A ____ B ____ C ____

Points Factor 5: A ____ + B ____ + C ____ = NA TOTAL

FACTOR 6: Proximity to Near Coastal Waters

- A. *Base Score: Enter flow code here (from Factor 2):* ____ *Enter the multiplication factor that corresponds to the flow code:* ____

Check appropriate facility HPRI Code (from PCS):

HPRI#	Code	HPRI Score	Flow Code	Multiplication Factor
<input type="checkbox"/>	1	1	20	
<input type="checkbox"/>	2	2	0	
<input type="checkbox"/>	3	3	30	
<input type="checkbox"/>	4	4	0	
<input type="checkbox"/>	5	5	20	
			11, 31, or 41	0.00
			12, 32, or 42	0.05
			13, 33, or 43	0.10
			14 or 34	0.15
			21 or 51	0.10
			22 or 52	0.30
			23 or 53	0.60
			24	1.00

HPRI code checked: ____

Base Score: (HPRI Score) ____ X (Multiplication Factor) ____ = ____ (TOTAL POINTS)

- B. *Additional Points* ☐ *NEP Program*
For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
<input type="checkbox"/> Yes	1	10
<input type="checkbox"/> No	2	0

- C. *Additional Points* ☐ *Great Lakes Area of Concern*
For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see Instructions)

	Code	Points
<input type="checkbox"/> Yes	1	10
<input type="checkbox"/> No	2	0

Code Number Checked: A ____ B ____ C ____

Points Factor 6: A ____ + B ____ + C ____ = NA TOTAL

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	<u>NA</u>
2	Flows/Streamflow Volume	<u>NA</u>
3	Conventional Pollutants	<u>NA</u>
4	Public Health Impacts	<u>NA</u>
5	Water Quality Factors	<u>NA</u>
6	Proximity to Near Coastal Waters	<u>NA</u>
TOTAL (Factors 1 through 6)		<u>700</u>

S1. Is the total score equal to or greater than 80? ☒ Yes (Facility is a major) ☐ No

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☐ No

☐ Yes (Add 500 points to the above score and provide reason below:

Reason:

NEW SCORE: 700

OLD SCORE: NA

Jaime Bauer
Permit Reviewer's Name

(804) 698-4416
Phone Number

July 28, 2014
Date

Dispensation of Request for a Public Hearing
VPDES Permit No. VA0088609
Chesterfield County MS4

Appendix 3:
List of Commenters

Association	First	Last	Street	City	State	Zip	Email Address	Phone
Chesapeake Bay Foundation	Margaret (Peggy)	Sanner	1108 E Main Street Suite 1600	Richmond	VA	23219	PSanner@cbf.org	
CBF - Action Alert	Kimberly	Abe	P.O. Box 445	Wicomico Church	VA	22579	kruthabe@gmail.com	(540) 422-8213
CBF - Action Alert	Gregory	Allen	514 Gardiner Road	Richmond	VA	23229	allenga@vcu.edu	(540) 560-8214
CBF - Action Alert	Dean	Amel	3013 4th Street N	Arlington	VA	22201	damel@alum.mit.edu	(703) 243-2095
CBF - Action Alert	Lawrence	Amos	2212 Rio Vista Street	Chester	VA	23831	amos9440@yahoo.com	(804) 748-4919
CBF - Action Alert	Albert	Archard	70 Camp Drive	White Stone	VA	22578	leearchard7@gmail.com	(804) 741-1079
CBF - Action Alert	Gloria	Asher	3440 S Jefferson Street	Falls Church	VA	22041	ashglor22@gmail.com	
CBF - Action Alert	Faye	Bailey	350 Middle Street	Portsmouth	VA	23704	fbailey8@verizon.net	(757) 287-9509
CBF - Action Alert	Judy	Baizer	1559 Mount Eagle Place	Alexandria	VA	22302	seaweed1945@earthlink.net	(703) 931-5674
CBF - Action Alert	Jill	Baker	200 Rivers Edge Drive	Great Falls	VA	22066	jsnodelman@aol.com	(703) 759-1640
CBF - Action Alert	Andrew	Ball	P.O. Box 295	Jersey	VA	22481	andyb@uab.edu	(540) 775-6701
CBF - Action Alert	Richard	Ball	4022 Downing St	Annandale	VA	22003	ballr.sclub@gmail.com	(703) 256-9309
CBF - Action Alert	Marie	Ballenger	1700 Bent Tree Court	Charlottesville	VA	22902	furball315@comcast.net	
CBF - Action Alert	Julia	Balsley	2841 Summerfield Rd	Falls Church	VA	22042	Juliageisler@hotmail.com	
CBF - Action Alert	Amiele	Barakey	510 Virginia Ave	Virginia Beach	VA	23451	ahbarak@aol.com	
CBF - Action Alert	Mary	Barhydt	5555 Lakewood Drive	Norfolk	VA	23509	barhydt@cox.net	(757) 855-1440
CBF - Action Alert	Heather	Barlow	1852 Indian Creek Rd	Chesapeake	VA	23322	violafemme@hotmail.com	
CBF - Action Alert	Elizabeth	Barnes	139 Riverview Ave Apt 229	Norfolk	VA	23510	EPB.architect@gmail.com	
CBF - Action Alert	Thomas	Barnes	1332 northvale drive	Virginia Beach	VA	23464	watermanvabch@msn.com	
CBF - Action Alert	Elaine	Becker	2514 Sharmar Rd.	Roanoke	VA	24018	elainebecker@yahoo.com	
CBF - Action Alert	Douglas	Beckmann	722 Lesner Avenue, 202	Norfolk	VA	23518	dbeckmann1@cox.net	(757) 531-0822
CBF - Action Alert	Debbie	Belote	12126 Heron Dr	Machipongo	VA	23405	dbelote008@gmail.com	(757) 678-7361
CBF - Action Alert	Kevin	Bennett	14416 Huntgate Woods Road	Midlothian	VA	23112	bennettkevinj@gmail.com	(804) 744-2148
CBF - Action Alert	Holly	Benton	7415 Hampton Blvd	Norfolk	VA	23505	habenton@gmail.com	(330) 495-5915
CBF - Action Alert	Harry	Bergmann	12374 Fife Ness Court	Bristow	VA	20136	denali1121@yahoo.com	(703) 257-4161
CBF - Action Alert	Eliza	Berkley	6433 Eleanor Court	Norfolk	VA	23508	elizaberkley@hotmail.com	(757) 222-6725
CBF - Action Alert	Winston	Bibee	2114 Maple Street	Virginia Beach	VA	23451	winston.bibee@gmail.com	(757) 334-1091
CBF - Action Alert	Courtney	Birkett		Williamsburg	VA	23185	cjbirkett@aol.com	
CBF - Action Alert	David	Blackwell	271 Whorton Hollow Road	Castleton	VA	22716	david.locuspocus@gmail.com	(540) 937-3941
CBF - Action Alert	Marilynne	Blair	182 W. Ocean Avenue	Norfolk	VA	23503	mlblair0709@gmail.com	(703) 401-5362
CBF - Action Alert	Robert	Bowen	3213 Greenstone Way	Herndon	VA	20171	rob.bowen@cwit.com	(703) 481-1845
CBF - Action Alert	Kathy	Boyd	5 Market St	Onancock	VA	23417	klmenges@gmail.com	
CBF - Action Alert	Mike	Bradley	811 Autumn Breeze Ct.	Herndon	VA	20170	mike@FPBglobal.com	
CBF - Action Alert	William	Briggs	907 Woodlawn Trail	Appomattox	VA	24522	riserman@hotmail.com	
CBF - Action Alert	Carolyn	Brown	2702 Chesterfield Blvd.	Norfolk	VA	23504	breezy98@cox.net	757-722-6932
CBF - Action Alert	Martha	Buhler	2822 Rosemary Lane	Falls Church	VA	22042	mrubuhler@verizon.net	(703) 533-0449
CBF - Action Alert	Susan	Burdette	7108 Lakeshore Drive	Quinton	VA	23141	swburdette@cox.net	(804) 932-9416
CBF - Action Alert	Scott	Burger	612 S. Laurel St.	Richmond	VA	23220	scottburger@mac.com	
CBF - Action Alert	Richard	Burian	1002 Eheart St.	Blacksburg	VA	24060	rmburian@vt.edu	(540) 552-5900
CBF - Action Alert	Joyce	Burns	3445 S. Crestline Drive	Virginia Beach	VA	23434	jburns@roseandwomble.com	
CBF - Action Alert	Richard	Burwell	3517 S. Plaza Trail	Virginia Beach	VA	23452	Rreeshard@aol.com	
CBF - Action Alert	Joann	Bushay	14602 Eastman Street	Woodbridge	VA	22193	busher9518@aol.com	(703) 680-1383
CBF - Action Alert	Margaret	Byrne	209 High St	Petersburg	VA	23803	savefilm11@aol.com	
CBF - Action Alert	Catherine	Caldwell		Charlottesville	VA	23901	catecaldwell@msn.com	
CBF - Action Alert	mary	calvert	3853 edinburgh dr	virginia beach	VA	23452	mary14@cox.net	
CBF - Action Alert	Ruth	Carlone	300 Mt. Olive Road	Stafford	VA	22556	rcarlson300@aol.com	(540) 752-2323
CBF - Action Alert	Robert	Carlson	9900 Swallow Ridge	Toano	VA	23168	kabobcarlson@gmail.com	
CBF - Action Alert	Steven	Carter-Lovejoy	2446 Early Settlers Road	North Chesterfield	VA	23235	scarterlovejoy53@msn.com	(804) 272-3119
CBF - Action Alert	Lucy	Cassidy	6 Ruth Drive	Poquoson	VA	23662	casadicassidy@verizon.net	
CBF - Action Alert	Lucille	Chagnon	4176 Vivian Street	Chincoteague	VA	23336	lifeline248@aol.com	

Association	First	Last	Street	City	State	Zip	Email Address	Phone
CBF - Action Alert	Joan	Chapman	1602 Jamestown Drive	Charlottesville	VA	22901	joanmchapman@hotmail.com	(804) 202-2020
CBF - Action Alert	Nick	Chong	902 N Columbus Street	Alexandria	VA	22314	nnchong@gmail.com	
CBF - Action Alert	Richard	Churray	84 Pepperbox Lane - - P.O. Box 505	Port Haywood	VA	23138	curajlofts@gmail.com	(804) 725-4031
CBF - Action Alert	Peter	Ciarrocca	3705 Center Way	Fairfax	VA	22033	pciarrocca@gmail.com	(703) 385-0098
CBF - Action Alert	Diane	Clark	1003 Wren Hollow Road	Woolwine	VA	24185	diane718@centurylink.net	(276) 930-2818
CBF - Action Alert	Tom	Clarke	P.O. Box 82	Urbanna	VA	23175	sebagobblue@gmail.com	
CBF - Action Alert	Sheriden	Clem	4059 S. Reese Drive	Portsmouth	VA	23703	catlady1220@gmail.com	(757) 483-6309
CBF - Action Alert	Gina	Clune	4401 Holborn Avenue	Annandale	VA	22003	gclune012@gmail.com	
CBF - Action Alert	Douglas	Cochrane	3138 Woodland Lane	Alexandria	VA	22309	dmc3138@verizon.net	(703) 360-7305
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CBF - Action Alert	Jane	Norris	2430 Ships Watch Court	Virginia Beach	VA	23451	NorrisJS@yahoo.com	(703) 312-7010
CBF - Action Alert	E.	Nuckols	13911 Barnes Spring Road	Midlothian	VA	23112	sailn38@comcast.net	(804) 744-9068
CBF - Action Alert	Jon	Nugent	1404 Dory Dr 2117	Virginia Beach	VA	23452	jnugent0321@yahoo.com	
CBF - Action Alert	Charles	Oberkehr		Alexandria	VA	22309	Choberkehr@aol.com	

Association	First	Last	Street	City	State	Zip	Email Address	Phone
CBF - Action Alert	Blake	O'Connor		Norfolk	VA	23503	blakeoconnornavy@gmail.com	
CBF - Action Alert	Geoffrey	Ogden	23347 Potts Mill Road	Middleburg	VA	20117	geoffogden@msn.com	
CBF - Action Alert	Barbara	Oleksa-Reiss	179 Brynteg Lane	Lexington	VA	24450	theatredesigns@aol.com	
CBF - Action Alert	Larry	Olson	16927 Wolf Creek Rd	Montpelier	VA	23192	passngr6863@gmail.com	804-883-7257
CBF - Action Alert	Carl	Onesty	1002 Old Denbigh Blvd - - Apt 209	Newport News	VA	23602	conesty@aol.com	(703) 978-4684
CBF - Action Alert	John	Overton	3006 3rd Street North	Arlington	VA	22201	jjoverton@earthlink.net	(703) 528-4088
CBF - Action Alert	Sallie	Park	1739 Old Brook Road	Charlottesville	VA	22901	wildwindsk@earthlink.net	
CBF - Action Alert	Diana	Parker	10700 Chalkley Road	North Chesterfield	VA	23237	erthshr@comcast.net	
CBF - Action Alert	Dianne	Payne	2401 Chesapeake Ave	Hampton	VA	23661	Payne967@msn.com	(757) 928-0067
CBF - Action Alert	Samuel	Perdue	6900 Haycock Road	Falls Church	VA	22043	sam22043@gmail.com	(703) 241-8664
CBF - Action Alert	Mark	Perreault	950 Hanover Avenue	Norfolk	VA	23508	perreault3@cox.net	(757) 489-0772
CBF - Action Alert	Whitney	Petrilli	7122 Baldwin Ridge Road	Warrenton	VA	20187	whittyp@comcast.net	(540) 878-1730
CBF - Action Alert	Beverly	Pettway	8920 Scotford Road	Richmond	VA	23236	bevpettway@gmail.com	(804) 276-1418
CBF - Action Alert	David	Peyton	7121 Gordons Road	Falls Church	VA	22043	david@peyttons.us	(703) 536-3470
CBF - Action Alert	Rebecca	Piatt	163 Jean Place	Lynchburg	VA	24502	beknwoods@yahoo.com	(434) 534-2697
CBF - Action Alert	mary	picardi	219 55th	virginia beach	VA	23451	mary_picardi@msn.com	(757) 640-1028
CBF - Action Alert	Laurie	Pitchford	812 Botetourt Gardens	Norfolk	VA	23507	laurie.pitchford@gmail.com	(757) 961-7678
CBF - Action Alert	Kelly	Place	213 Waller Mill Road	Williamsburg	VA	23185	kelltron@aol.com	(757) 220-8801
CBF - Action Alert	Bill	Plyler	1119 Rhode Island Avenue	Lynchburg	VA	24502	billplyler2@yahoo.com	
CBF - Action Alert	Robert	Poignant	300 Lansing Avenue	Lynchburg	VA	24503	socjusticeadvocate@verizon.net	(434) 846-0429
CBF - Action Alert	Elizabeth	Poist	341 Woodlands Rd	Charlottesville	VA	22901	bpoist@cstone.net	
CBF - Action Alert	Georgia	Polacek	1825 Southview Dr.	Harrisonburg	VA	22802	georgiapolacek@gmail.com	
CBF - Action Alert	Michael	Pollio	16401 Red Bank Lane	Melfa	VA	23417	shoreospreys@gmail.com	(757) 787-4371
CBF - Action Alert	Joan	Poskey	1450 Timber Ridge Rd	Maidens	VA	23102	jposkey@verizon.net	
CBF - Action Alert	Michelle and Robert	Powell	1897 Lillards Ford Road	Brightwood	VA	22715	artistpowell@juno.com	
CBF - Action Alert	curtis	Prince		Charlottesville	VA	22902	curtisprincemusic@gmail.com	
CBF - Action Alert	Philip	Prisco	116 River Road	Poquoson	VA	23662	priscop@verizon.net	(757) 868-8785
CBF - Action Alert	Samuel	Proctor	3015 Dumbarton Road	Richmond	VA	23228	sproctor@fandr.com	(804) 264-2701
CBF - Action Alert	Andrea	Pulley	5604 Hickory Road	South Chesterfield	VA	23803	andrea_pulley@ccpsnet.net	(804) 590-9773
CBF - Action Alert	Penny	Pulley	20 Mile Course	Williamsburg	VA	23185	pennypal@cox.net	
CBF - Action Alert	Jerry	Pulliam	390 Captains Point Lane	Heathsville	VA	22473	Jerrypulliam61@gmail.com	
CBF - Action Alert	Matilda	Purnell	4292 Millington Road	Free Union	VA	22940	skiptil@embarqmail.com	(434) 974-7028
CBF - Action Alert	Rosie	Rallos	1107 Snowbird Lane	Virginia Beach	VA	23454	rosie.rallos@med.navy.mil	(757) 285-3117
CBF - Action Alert	Annette	Ramos	1710 Commonwealth Ave - - Apt C4	Alexandria	VA	22301	nanina7878@yahoo.com	(703) 585-1443
CBF - Action Alert	David	Rampy	3811 Woodlawn Court	Alexandria	VA	22304	drampy48@gmail.com	
CBF - Action Alert	Roberta	Randolph	14 East Howell Ave.	Alexandria	VA	22301	rprandolph1@gmail.com	
CBF - Action Alert	Richard Lee	Rapp	2008 Handel Court	Virginia Beach	VA	23454	richardrapp88@gmail.com	
CBF - Action Alert	Henry	Recla	13006 Emmet Court	Woodbridge	VA	22192	hjrecla@comcast.net	(703) 491-7189
CBF - Action Alert	Carson	Rector	10425 Mountain Glen Parkway	Glen Allen	VA	23060	ccr4nd@msn.com	
CBF - Action Alert	John	Reeves	400 Silver Oaks Drive	Harrisonburg	VA	22801	jbr1948@comcast.net	(540) 433-9358
CBF - Action Alert	James	Rider	2301 Southern Pines Drive	Chesapeake	VA	23323	jimrider2@verizon.net	
CBF - Action Alert	Jerry	Ridgeway	450 Mason St.	Dayton	VA	22821	jridgeway@rockingham.k12.va.us	540-383-8694
CBF - Action Alert	Norma	Roberts	8305 Riverton Lane	Alexandria	VA	22308	normajr29@gmail.com	
CBF - Action Alert	Thomas	Roberts	1923 English Oaks Cir N	Charlottesville	VA	22911	tjroberts9@gmail.com	(434) 202-0131
CBF - Action Alert	Christine	Robinson	328 Franklin Street #1 - -	Harrisonburg	VA	22801	symphonyfan@yahoo.com	(540) 568-5958
CBF - Action Alert	James	Robinson	P.O. Box 160	Mobjack	VA	23056	jrobinsonjr@mindspring.com	
CBF - Action Alert	Donna	Robson	2219 N. Dearing Street	Alexandria	VA	22302	Donna.robson@comcast.net	
CBF - Action Alert	Edgar	Rohr	P.O. Box 71	Manassas	VA	20108	crohrsoccer@comcast.net	703-368-3000
CBF - Action Alert	Jorge	Romero	11123 Glade Dr	Reston	VA	20191	Birikumb@comcast.net	
CBF - Action Alert	Patricia	Rooney	16644 Radcliffe Lane	Woodbridge	VA	22191	Pattyrooney@comcast.net	(703) 680-7915

Association	First	Last	Street	City	State	Zip	Email Address	Phone
CBF - Action Alert	Clyde	Roper	611 Mollys Way	Saluda	VA	23175	gsquidinc@verizon.net	
CBF - Action Alert	Donald	Rosanelli	Bailey Lane	Fairfax	VA	22031	drosanelli@aol.com	
CBF - Action Alert	Rogard	Ross	3800 Rivercrest Pl	Chesapeake	VA	23325	Rogard@yahoo.com	
CBF - Action Alert	Patricia	Rowell	1520 Grassymeade Lane	Alexandria	VA	22308	patriciarowell@verizon.net	(703) 360-4851
CBF - Action Alert	Joseph	Rule	1200 Smith Cove Circle	Virginia Beach	VA	23455	jhrule@cox.net	(757) 554-0440
CBF - Action Alert	Robin	Ruth	4029 Crutchfield Street	Richmond	VA	23225	robin.ruth@verizon.net	(804) 231-5949
CBF - Action Alert	Patric	Sabin	4528 Fairmont Ave	Lynchburg	VA	24502	sabin.drg@gmail.com	
CBF - Action Alert	Meriwether Anderson	Sale	4219 Woodside Drive	Harrisonburg	VA	22801	andysale@verizon.net	
CBF - Action Alert	Lori	Sallade	330 Cedar Bluff Rd	Charlottesville	VA	22901	lasallade@gmail.com	
CBF - Action Alert	Robert	Samuelson	1498 Teague Drive	McLean	VA	22101	rjsamuelson2@icloud.com	(617) 312-9827
CBF - Action Alert	Helen	Sanders	1612 Franklin Street	Fredericksburg	VA	22401	s.sanders4@cox.net	(540) 371-6982
CBF - Action Alert	Mark	Santora	5408 Orchard Park Court, Apt 613	Glen Allen	VA	23059	dynamo_12601@yahoo.com	
CBF - Action Alert	Kelly	Saunders	510 Blount Point Rd	Newport News	VA	23606	robnkellyn5@verizon.net	757-898-3754
CBF - Action Alert	Tom	Schanely	7313 Reservation Dr.	Springfield	VA	22153	TSchanely@gmail.com	(703) 618-2933
CBF - Action Alert	Jeffrey	Schnebelen	806 Stafford Glen Court	Stafford	VA	22554	whatsallthisthen@comcast.net	
CBF - Action Alert	Matthew	Schwab	5017 Selwood Rd	Chesterfield	VA	23234	mattschwab77@gmail.com	4077164015
CBF - Action Alert	Michelle-Marie	Scott	503 Hammond Street	Newport News	VA	23601	mishcarlscott@gmail.com	(757) 223-1273
CBF - Action Alert	Ashley	Scruggs	145 Nina Drive #101	Virginia Beach	VA	23462	ascruggs@diosova.org	(804) 519-4358
CBF - Action Alert	Michael	Scully	2300 bays edge ave	Virginia beach	VA	23451	Scullym@aol.com	
CBF - Action Alert	CAROL	SENECHAL	1116 HANOVER AVENUE	NORFOLK	VA	23508	cfslll@aol.com	
CBF - Action Alert	George	Sergeant	4602 Exeter ST	Annandale	VA	22003	george.sergeant@verizon.net	
CBF - Action Alert	Jenine	Serviolo	1231 Boissevain Avenue	Norfolk	VA	23507	jenine.serviolo@gmail.com	
CBF - Action Alert	Susan	Sills	205 Jones Drive	Weems	VA	22576	susansills54@gmail.com	
CBF - Action Alert	Josephine	Skibinski	412 Lancey Drive	Midlothian	VA	23114	jsskibinski@gmail.com	
CBF - Action Alert	John	Small	13467 Solitude Trail	Machipongo	VA	23405	small393@msn.com	
CBF - Action Alert	Nancy	Sopher	5809 Chase Commons Court Apt. #306	Burke	VA	22015	nsopher7@gmail.com	
CBF - Action Alert	Warren	Spaeth	1216 N. Quantico St.	Arlington	VA	22205	wspaeth@verizon.net	(703) 534-2220
CBF - Action Alert	William	Spaniol	3213 S Battlebridge Drive	N. Chesterfield	VA	23224	joespaniol@gmail.com	
CBF - Action Alert	Kimberly	Spiegel	1476 Longdale Drive	Norfolk	VA	23513	kspiegel82@gmail.com	
CBF - Action Alert	Brenda	Staab	5709 Aura Drive	Virginia Beach	VA	23457	bcstaab@cox.net	(757) 721-9134
CBF - Action Alert	Robin	Stamper	2957 Elegance Ln	Virginia Beach	VA	23456	rkellogg2@cox.net	(757) 430-3184
CBF - Action Alert	James	Steele	207 Eaton Court	Stafford	VA	22554	wayfarerjeff@gmail.com	(540) 720-2733
CBF - Action Alert	Christopher	Stephens	76 Saddle Ridge Lane	Nellysford	VA	22958	chris.stephens@gmail.com	
CBF - Action Alert	Donald	Stephens	460 Barcelona Ln	Virginia Beach	VA	23452	sausha4@aol.com	(757) 486-3792
CBF - Action Alert	Venetta	Stephens	520 Caravelle Dr.	Chesapeake	VA	23322	glstephens13@verizon.net	
CBF - Action Alert	Betty	Stewart	2 Eton Cove	Newport News	VA	23608	abby109@cox.net	
CBF - Action Alert	John	Stewart	3359 Pine Meadows Way	Exmore	VA	23350	douglyest@aol.com	(757) 442-2783
CBF - Action Alert	Thatcher	Stone	P O Box 756	Keswick	VA	22947	thatcher@thatcher-stone-legal.com	(646) 873-7521
CBF - Action Alert	Kevin	Strickland	413 S pine at	Richmond	VA	23220	Stricklandka@vcu.edu	757-353-5949
CBF - Action Alert	Carol	Summerlyn	909 Stanley Rd	Portsmouth	VA	23701	Csummerlyn@cwa-union.org	
CBF - Action Alert	Suzanne	Szabo	P.O. Box 2391	Leesburg	VA	20177	spkszabo@gmail.com	
CBF - Action Alert	Edward	Taylor	18420 Silverado Terrace	Leesburg	VA	20176	carol.taylor@Inf.com	(703) 771-8841
CBF - Action Alert	Jan	Taylor	4841 Garden Spring Lane - - Apt. #103	Glen Allen	VA	23059	janmact@comcast.net	
CBF - Action Alert	John	Tessieri	601 Battenburg Court	No. Chesterfield	VA	23236	johnTessieri@comcast.net	(804) 512-8470
CBF - Action Alert	H. Stetson	Tinkham	206 North Alfred Street	Alexandria	VA	22314	stetson.tinkham@gmail.com	(703) 549-7369
CBF - Action Alert	Alicia	Todd	7531 Willow LN	FALLS CHURCH	VA	22042	alicia01@speakeasy.net	
CBF - Action Alert	Josh	Tootell		Glen Allen	VA	23060	Jktootell@gmail.com	
CBF - Action Alert	Paul	Tremblay	504 Fillmore Street	Herndon	VA	20170	paul.l.tremblay@verizon.net	(703) 834-0889
CBF - Action Alert	Gail	Troy	3036 Dutch Creek	Shipman	VA	22971	gailrtroy@hotmail.com	(434) 263-4817
CBF - Action Alert	Kelly	Tsow	515 S. Pine Street	Richmond	VA	23220	ksow@valcv.org	

Association	First	Last	Street	City	State	Zip	Email Address	Phone
CBF - Action Alert	Catharine	Tucker	302 Danray Drive	Richmond	VA	23227	cath.tucker@gmail.com	
CBF - Action Alert	Carlton	Turner	2032 Marys Shady Lane	Front Royal	VA	22630	Wayne.Turner@issachar.com	
CBF - Action Alert	Joseph	Valentine	P.O. Box 438	Onancock	VA	23417	Joesbusiness@verizon.net	
CBF - Action Alert	Paul	Van Riper	161 Waterton	Williamsburg	VA	23188	vanriper7@cox.net	
CBF - Action Alert	Jean Marie	Van Winkle	2420 Hardy Road	Hardy	VA	24101	jean_pawsforgod@jetbroadband.com	
CBF - Action Alert	Ross	Varin	3717 Pinoak Road	Richmond	VA	23223	ross.varin@comcast.net	(804) 217-8461
CBF - Action Alert	Ted	Varnier	14014 Bridgetown Circle	Chester	VA	23831	tedvarnier@comcast.net	
CBF - Action Alert	Tracey	Vazquez	721 Basing Court	Chesapeake	VA	23322	boxerwoman@hotmail.com	(757) 482-5370
CBF - Action Alert	Constance	Visceglia		faber	VA	22938	edenbird39@yahoo.com	
CBF - Action Alert	Christian	Volz	20270 Youngs Cliff Road	Potomac Falls	VA	20165	chrisvolz@hotmail.com	(571) 313-1788
CBF - Action Alert	Patricia	VonOhlen		Newport News	VA	23601	Wvonohlen@gmail.com	
CBF - Action Alert	Lee	Waggoner	10009 Commonwealth Blvd.	Fairfax	VA	22032	lwaggoner@disa.org	(410) 228-8355
CBF - Action Alert	Susan	Walker	5120 Maris Ave	Alexandria	VA	22304	walkerse1@yahoo.com	
CBF - Action Alert	William	Wallace	3512 Fieldcrest Court	Williamsburg	VA	23185	bbwallac@verizon.net	(757) 565-2633
CBF - Action Alert	Robert	Waltenbaugh	11204 Pinewood Ct	Henrico	VA	23238	robwalten@gmail.com	(804) 379-0227
CBF - Action Alert	William	Wardlaw	109 Blackburn Bluff	Charlottesville	VA	22901	Wardlaw2013@comcast.net	
CBF - Action Alert	Carol	Warren	3033 Yakima Road	Chesapeake	VA	23325	nana0308@gmail.com	757-439-6418
CBF - Action Alert	Romon	Washington		Woodbridge	VA	22193	Romonwashington@yahoo.com	
CBF - Action Alert	Christa	Watters	1186 N. Pitt St.	Alexandria	VA	22314	watrsedge@aol.com	(703) 549-6167
CBF - Action Alert	Clare	Weaver	3800 Sheringham Place	Lynchburg	VA	24503	weavers4@aol.com	(434) 384-9426
CBF - Action Alert	Alan	Webb	2202 Windom Place	Virginia Beach	VA	23454	webba_50@yahoo.com	
CBF - Action Alert	Virginia	Werner	272 E. 39th Street	Norfolk	VA	23504	ginny.werner@whro.org	
CBF - Action Alert	Karen	Westermann	230 old Fraziers trail	West Point	VA	24281	ktootelian@gmail.com	(804) 769-2204
CBF - Action Alert	Phyllis	White	1307 Hornsbyville Road	Yorktown	VA	23692	flyingcoyote@earthlink.net	
CBF - Action Alert	Carey	Whitehead	2215 Fall Hill Avenue	Fredericksburg	VA	22401	careywhitehead@gmail.com	
CBF - Action Alert	Ann	Whitford	6619 Locust Way	Annandale	VA	22003	muse630bce@yahoo.com	(703) 354-7622
CBF - Action Alert	Mark	Whiting	19141 Potomac Crest Dr	Triangle	VA	22172	mlw1307@verizon.net	
CBF - Action Alert	Kevin	Williams	1712 Lake Shore Crest Dr	Reston	VA	20190	williamskm33@gmail.com	
CBF - Action Alert	Donna M	Williams More	1411 Edson Terrace	Hampton	VA	23663	dmariewms@hotmail.com	
CBF - Action Alert	Barbara	Williamson	499 Nicholas Street SE	Abingdon	VA	24210	Bawmson1027@juno.com	
CBF - Action Alert	Noelles	Winsor	1233 stuart robeson drive	mclean	VA	22101	noellesws@aol.com	(703) 506-1233
CBF - Action Alert	Greg	Wonderly	4762 Mandan Road	Virginia Beach	VA	23462	gpw52255@msn.com	(757) 652-0668
CBF - Action Alert	John	Woodwell	8811 Queen Elizabeth Blvd	Annandale	VA	22003	johnwoodwell@yahoo.com	
CBF - Action Alert	Patricia	Wright	P.O. Box 64006	Virginia Beach	VA	23467	pwright2012@gmail.com	
CBF - Action Alert	Sandi	Wurtz	121 South Ingram Street	Alexandria	VA	22304	swurtz@gmail.com	(703) 823-9279
CBF - Action Alert	Claire	Wyngaard	12228 Allspice Ct	Woodbridge	VA	22192	cwyngaard@verizon.net	(703) 304-9152
CBF - Action Alert	Roseann	Xytakis	12001 Bowerton Road	Richmond	VA	23233	r.e.xytakis@juno.com	
CBF - Action Alert	James	Zoller	6329 Bob White Drive	Warrenton	VA	20187	jameszoller1@gmail.com	
Individual	Tom	Kennedy	216 Sparrow Rd	Chesapeake	VA	23325	soccer2@gmail.com	
Individual	Denise	Mosca	6977 Ark Road	Gloucester	VA	23061	dmosca@cox.net	(804) 693-9097
James River Association	Adrienne	Kotula	4833 Old Main Street	Richmond	VA	23231	akotula@java.org	
JRA Action Alert	Robin	Autry	NOT PROVIDED					
JRA Action Alert	Ryan	Corrigan	NOT PROVIDED					
JRA Action Alert	Brian	Dan	NOT PROVIDED					
JRA Action Alert	Cecilia	Dan	NOT PROVIDED					
JRA Action Alert	Cleo	Dan	NOT PROVIDED					
JRA Action Alert	Alexander	Fisher	NOT PROVIDED					
JRA Action Alert	Matt	Hassmer	NOT PROVIDED					
JRA Action Alert	Athena	Parker	NOT PROVIDED					
JRA Action Alert	Ian	Patrick	NOT PROVIDED					

Association	First	Last	Street	City	State	Zip	Email Address	Phone
JRA Action Alert	Alexander	Schettine	NOT PROVIDED					
JRA Action Alert	Tracy	Scott	NOT PROVIDED					
JRA Action Alert	Mike	Sims	NOT PROVIDED					
JRA Action Alert	Steve	Willard	NOT PROVIDED					
National Park Conservation Assoc.	Pamela	Goddard	NOT PROVIDED					
Natural Resources Defense Council	Rebecca	Hammer	1152 15th Street, NW Suite 300	Washington	DC	20005		
Potomac Conservancy	Amanda	John						
Potomac Riverkeeper, Inc	Sarah	Rispin	1615 M Street NW	Washington	DC	20036	rispin@potomacriverkeeper.org	(202) 556-2930
VDOT	Roy	Mills						
Virginia Conservation Network	Emily	Russell						

Bauer, Jaime (DEQ)

From: Mills, Roy T. (VDOT)
Sent: Friday, October 31, 2014 1:47 PM
To: Bauer, Jaime (DEQ)
Cc: Cunningham, Frederick (DEQ)
Subject: Draft Chesterfield-Prince William MS4 Permits
Attachments: VDOT Comment Draft Chesterfield-PW MS4 Permit.pdf

Attached is VDOT's comments on the noted draft permits. A hard copy will follow.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Charles A. Kilpatrick, P.E.
Commissioner

October 31, 2014

Ms. Jaime Bauer
Virginia Department of Environmental Quality
Office of VPDES Permits
629 East Main Street
Richmond, VA 23218

Dear Ms. Bauer:

The Virginia Department of Transportation (VDOT) has reviewed the draft Municipal Separate Storm Sewer System (MS4) permits for both Chesterfield County and Prince William County. VDOT does not have specific objections to either of the permits at this time. However, based on the language in the "Infrastructure Coordination" sections contained in both permits, VDOT recognizes that a sufficient amount of coordination, cooperation and data exchange is expected between the Phase I locality and VDOT. VDOT recognizes the value of coordinating and exchanging data with other MS4 jurisdictions and entities. On its own initiative, VDOT has reached out to all Phase 1 and a number of Phase 2 MS4s to increase both the communication and the cooperation between VDOT and the MS4s, with an emphasis on the illicit discharge and elimination and TMDL elements of the MS4 program. Information has been shared by both VDOT and the other MS4s related to the overall status of their respective MS4 programs, outfall mapping and data collection efforts, TMDL implementation plan efforts and the potential for collaboration in the future. VDOT plans to continue to work with other MS4s to identify areas of commonality and where data sharing and cooperative efforts will lead to a more effective program for all.

Ms. Jaime Bauer
October 31, 2014
Page 2

Thank you for the opportunity to comment on the draft MS4 permits for both Chesterfield County and Prince William County. If you have any questions about these comments, please feel free to contact me at (804) 786-9013 or at roy.mills@vdot.virginia.gov.

Sincerely,

A handwritten signature in blue ink, reading "Roy T. Mills". The signature is stylized with a large, looped "R" and a cursive "Mills".

Roy T. Mills
State Stormwater Management
Program Administrator

Bauer, Jaime (DEQ)

From: Sarah Rispin [rispin@potomacriverkeeper.org]
Sent: Monday, November 03, 2014 4:18 PM
To: Bauer, Jaime (DEQ)
Cc: Hammer, Rebecca
Subject: Comments on Draft MS4 Permits No. VA0088609 and VA0088595 for Chesterfield County and Prince William County, Virginia

Jaime,

This email is to let you know that Potomac Riverkeeper and Shenandoah Riverkeeper endorse the Comments on Draft MS4 Permits No. VA0088609 and VA0088595 for Chesterfield County and Prince William County, Virginia that Rebecca Hammer at NRDC submitted to you today.

Many thanks,

Sarah Rispin
General Counsel
Potomac Riverkeeper, Inc.
1615 M Street NW
Second Floor
Washington DC 20036
t: 202 556 2930
c: 202 538 0454
f: 703 997 7302
rispin@potomacriverkeeper.org

Bauer, Jaime (DEQ)

From: Denise Mosca [dmosca@cox.net]
Sent: Monday, November 03, 2014 4:07 PM
To: Bauer, Jaime (DEQ)
Subject: VA0088609 - Chesterfield County MS4 and the VA0088595 - Prince William County MS4 permits.

Dear Jaime,

I would like to comment on the VA0088609 - Chesterfield County MS4 and the VA0088595 - Prince William County MS4 permits. The Chesapeake Bay Foundation submitted their comments and have pointed out areas in these permits where language can be strengthened and provide for stricter compliance under current laws and regulation. I would encourage that DEQ incorporate their suggestions into these permits.

Thank you for the opportunity to review these permits and submit comments.

Denise

Denise Mosca
6977 Ark Road
Gloucester Va 23061
804-693-9097
dmosca@cox.net

Bauer, Jaime (DEQ)

From: E. Polk Kellam [polkjr@verizon.net]
Sent: Monday, November 03, 2014 2:46 PM
To: Bauer, Jaime (DEQ)
Subject: Please strengthen urban stormwater permits in Chesterfield and Prince William Counties!

Dear Ms. Bauer,

I respectfully request DEQ's attention to the following points regarding the MS4 Phase I permits for Chesterfield and Prince William Counties:

1. I support DEQ's efforts to ensure enforceable benchmarks and milestones are included in the permits' Bay TMDL Action Plan, but request that the enforceability provisions be strengthened to make it publicly clear whether the counties are achieving the pollution reductions called for by the state's Watershed Implementation Plan.
2. I urge DEQ to require Internet publication of all parts of the permits so that the public is meaningfully included in the process of stream and Bay restoration.
3. I request acceleration of the schedule for key pollution reduction projects that can produce immediate improvements to local creeks and streams—projects like retrofits, system inspection and maintenance, street sweepings, and tree plantings.
4. I urge DEQ to strengthen the monitoring requirements so that it is clear whether the permits are effective in reducing pollution and to ensure any necessary modifications are made.

Thank you for helping to improve the health of our creeks, streams, and the Bay.

E. Polk Kellam
P. O. Box 246
Belle Haven, VA 23306

Bauer, Jaime (DEQ)

From: Supporter of James River Association [organizations@muster.com]
Sent: Saturday, November 01, 2014 2:59 PM
To: Bauer, Jaime (DEQ)
Subject: Message from Ian Patrick



James River Association

Message From Ian Patrick

Dear Ms. Bauer,

I believe that a public hearing is necessary for the Chesterfield County Phase I Municipal Separate Storm Sewer System permit. Public discussion is important as this is the first new permit to be issued for the County since 2003 and significant changes to the permit have been made. This permit serves as a vital tool for the County to meet its pollution reduction goals and citizens should play a part in the development. Chesterfield County's waterways must be restored in an effective and timely fashion.

As a recreational user of Chesterfield County's waterways, I am personally impacted by their degradation. Ensuring that this permit has proper safeguards will enhance my recreational experience, my quality of life and the quality of the waterways themselves.

The draft permit, within Section D, does not adequately address the Chesapeake Bay Cleanup pollution reductions. This is the most important element of this permit and it falls short of requiring necessary progress. The draft permit only calls for a 5% pollution reduction despite the fact that Virginia's plan envisioned a 40% pollution reduction by the end of the permit term. Given the significant delay in permit issuance and the lack of progress proposed within this permit, we believe this must be discussed in a public hearing.

Additionally, public participation elements within Section D for TMDL Action Plans other than the Chesapeake Bay TMDL are weak. The public must be provided a voice in the development of restoration plans in Chesterfield County. Given that these elements will determine the path that the County takes in restoring their waters, I believe improvement is necessary.

Thank you for taking the time to address these concerns.

Sincerely,

Ian Patrick

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Bauer, Jaime (DEQ)

From: Tom Kennedy [soccer2@gmail.com]
Sent: Thursday, October 23, 2014 8:30 PM
To: Bauer, Jaime (DEQ)
Subject: Awww, Come on Put Some Teeth In It

Jaime,

Runoff permits for Chesterfield and Prince William are a chance to get it right. PLEASE put some teeth in them. Accountability. Please strengthen the draft permits so that they are a good model for a good future throughout the state, instead of a dirty slope for people to slide threw on for year. You can do better for us. Please do better for us.

Tom Kennedy
216 Sparrow Rd.
Chesapeake, VA 23325



CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

November 3, 2014

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Office of VPDES Permits
Virginia Department of Environmental Quality
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Richmond, VA 23218
Jaime.bauer@deq.virginia.gov

Re: Comments of Chesapeake Bay Foundation, Inc.
Phase I MS4 Permit No. VA0088609 for Chesterfield County, Virginia
October 3, 2014 Draft

Dear Ms. Bauer:

The Chesapeake Bay Foundation, Inc. ("CBF") hereby submits its formal comments concerning the draft municipal separate storm sewer system ("MS4") permit for Chesterfield County, No. VA0088609, *Authorization to Discharge under the Virginia Stormwater Management Program and the Virginia Stormwater Management Act* ("Permit") and the draft fact sheet ("Fact Sheet"), which were published for public comment on October 3, 2014.

CBF recognizes the hard work of the Virginia Department of Environmental Quality ("DEQ") and Chesterfield County on this Permit. We appreciate this opportunity to recognize several important elements incorporated into the Permit and the accompanying draft Fact Sheet, including the requirements for the Chesapeake Bay TMDL Action Plan and in-stream monitoring. We also respectfully offer suggestions for improving the Permit and its effectiveness in reducing pollution from Chesterfield's urban and suburban stormwater sources.

VIRGINIA'S WATERSHED IMPLEMENTATION PLAN MS4 COMMITMENTS

Chesterfield's Permit is an important step in Virginia's historic effort to restore the Chesapeake Bay and its tributaries under the *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment* ("Bay TMDL")¹ and Virginia's *Chesapeake Bay TMDL Phase I and Phase II Watershed Implementation Plans*

¹ U.S. EPA, *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment* (December 29, 2010), available at <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/tmdlexec.html>.

(respectively, “Phase I WIP” and “Phase II WIP”).² The Bay TMDL identified the overall pollution reductions required to restore water quality by 2025, allocating the reductions among the seven Bay jurisdictions and major river basins and also setting individual waste load allocations (WLAs) to each of the 11 Virginia Phase I MS4s.³ Virginia’s Phase I WIP committed to issuing conforming permits for these permittees, such that each will be required to “implement a collective series of programs to reduce the discharge of pollutants from the given storm sewer system to the maximum extent practicable in a manner that protects the water quality of nearby streams, rivers, wetlands and bays.”⁴ The reissued MS4 permits are to bring about Level 2 (“L2”) nutrient and sediment reductions as identified in the Phase I WIP⁵ through “Action Plans” that use “enforceable permit language.”⁶ The Chesterfield Permit—only the second Virginia Phase I MS4 permit to be reissued since the 2010 Bay TMDL—marks significant progress toward meeting these commitments.

Notably, the Permit incorporates by reference the Bay TMDL’s individual WLAs for Chesterfield⁷ and establishes in the “TMDL Action Plan and Implementation” (Part I. D) section the steps the permittee must take to meet the pollution reductions represented by those WLAs.⁸ The permittee must develop within two years a phased TMDL Action Plan, premised on a 2009 Bay Model-compliant baseline, that requires calculated pound reductions (five percent of the required total) in the nitrogen, phosphorus, and sediment discharged during the permit term; the “means and methods, such as the management practices and retrofit programs” the permittee will use; and a compliance schedule, with annual benchmarks, to demonstrate ongoing progress.⁹

Second, in a very positive departure from the 2013 Phase I MS4 Permit for Arlington County, the Chesterfield Permit requires periodic in-stream monitoring for 11 Bay-critical parameters, including total phosphorus, total nitrogen, total suspended sediment, and dissolved

² *Virginia Chesapeake Bay TMDL Phase I Watershed Implementation Plan*, dated November 29, 2010, available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/finalWIPS/VirginiaWIPPortfolioNov292010.pdf. Virginia’s local commitments are detailed in its Phase II WIP.

³ See Bay TMDL, Appendix Q.

⁴ See Phase I WIP, at 79.

⁵ See Phase I WIP, at 91 (committing to an “average reduction of 9% of nitrogen loads, 16% of phosphorus loads and 20% of sediment loads from impervious regulated acres and 6% of nitrogen loads, 7.25% of phosphorus loads and 8.75% of sediment loads beyond 2009 progress loads and beyond urban management reductions from pervious regulated acres”).

⁶ See Phase I WIP, at 92.

⁷ See Permit Attachment A, which sets out the pollutants of concern (“POC”), affected stream segments and other information Attachment A states that the Bay TMDL establishes WLAs for this permittee that are based on the WLAs of all MS4s located in the jurisdiction, but the draft Permit also clarifies that Chesterfield is responsible for ensuring the included MS4s also attain their reductions. See Draft Permit, at Ll. 108, 119-120 (“Where the permittee relies on another party to implement a portion of this permit, responsibility for compliance with this permit shall remain with the permittee.”).

⁸ See Permit, at Part I.D. (“This Permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of 5% of L2 as specified in the 2010 Phase I WIP.”).

⁹ See Permit, at Part I.D.

oxygen. The monitoring must be conducted once every two months at each of five stream locations, with samples and measurements that are “representative of the monitored activity” and that follow prescribed monitoring, reporting, and recordkeeping protocols.¹⁰ Any proposal to change sampling locations after the first year must be supported and approved by DEQ. These requirements should supply critical information on the effectiveness of the County’s polluted runoff reduction program and assist in designing any needed improvements as the program moves forward.

These provisions represent important steps toward attainment of Virginia’s WIP commitments. We offer suggestions below, however, to improve these and other provisions to ensure the Permit does its job in compliance with Virginia’s State Water Control Law, the Stormwater Management Act, and the Clean Water Act.

**THE CHESTERFIELD PERMIT SHOULD BE MODIFIED TO ENSURE
CONSISTENCY WITH VIRGINIA’S PHASE I WIP AND
OTHER LEGAL REQUIREMENTS**

A. The Permit Should Be Modified to Ensure Consistency with Virginia’s Phase I WIP Commitments.

The Permit does not fully address a central assumption of the Bay TMDL, the principle that all practices to achieve the Bay TMDL-required reductions must be in place by the 2025 deadline.¹¹ The Permit does require Chesterfield to meet five percent of the reduction goal within this permit as the Phase I WIP commits, and it mandates that the County’s 2018 application for renewed permit coverage include the means and methods it will pursue to achieve an additional 35 percent (for a total of 40 percent) by the end of that second permit period.¹² Due to severe delays in issuing the present Permit, however, it is clear that the third permit period mentioned in the Phase I WIP will have just begun by 2025. This timing gives rise to the concern—appropriately signaled by the comments of the Choose Clean Water Coalition—that Chesterfield will not be able to meet the final 60 percent of its reductions by 2025. Yes, there is laudable sentiment expressed in the Fact Sheet: “Virginia will adjust its commitments, if necessary, as part of its Phase III WIP to ensure that practices are in place by 2025 that are necessary to meet water quality standards in the Chesapeake Bay and its tidal tributaries.” But such non-Permit language does not blunt the concern over a serious Permit shortcoming.

We decline at this time, however, to call for a higher percentage of required reductions within the present permit period. We expect Chesterfield County will be considering the acquisition of nutrient credits under Virginia’s recently expanded nutrient trading law and to apply those credits to meet its Permit limits, while it works to ensure permanent reductions

¹⁰ See Permit, Part II.C., which states requirements directly incorporated into the instream monitoring provisions at Part I.C.2.d.

¹¹ See 9VAC25-870-460 C.1.f (2).

¹² See Phase I WIP, at 93 (required pollution reductions of 5% WLA during the first period, 35% in the second, and the balance in the third permit cycle).

through best management practices and the like. This opportunity is in fact recognized in the Permit which states that in any case where temporary nutrient credits are used to meet the Permit limits, the permittee must submit to DEQ an implementation schedule to ensure a “permanent reduction shall be provided.”¹³

This *potential* availability of nutrient credits should make possible what would otherwise appear to be formidably difficult—meeting 100 percent of the nutrient obligations by 2025. But, given the anticipated need for such credits in the broader statewide market, this Permit must require the County to accelerate its planning and act long before 2022 (the end of the 2018 permit) to make necessary arrangements to reserve them. Moreover, there is no trading program for sediment, the third pollutant of concern under the Bay TMDL. For these reasons, it is imperative that DEQ include in this Permit the requirement that Chesterfield’s reapplication for coverage under the 2018 permit include documentation that describes, and demonstrates adequate and material progress in implementing, the County’s plan (including reservations of needed nutrient credits) for meeting the entire 100 percent goal for 2025.

Proposed Language:

Part I.D.1.d (5). *The permittee shall include the following as part of its reapplication package due in accordance with Part II.M: . . . (e) A draft third phase Chesapeake Bay TMDL Action Plan designed to reduce the existing pollutant of concern loads by an additional 12 times the required reductions in loading rates (for a combined total of 60%) using Table 2 of Part I.D.1.b of this state permit, including documentation evidencing the reservation of any nutrient credits the permittee intends to acquire and the BMPs the permittee intends to implement to ensure that practices are in place by 2025 that are necessary to meet water quality standards in the Chesapeake Bay and its tidal tributaries for use in achieving the POC reductions, unless alternative calculations have been provided by the Commonwealth; and (f) An additional 60% reduction in new sources developed between 2009 and 2014 and for which the land use cover conditions was greater than 16%.*

B. The Permit Should be Modified to Better Address Compliance with the “Maximum Extent Practicable” Concept and with Water Quality Standards.

The Clean Water Act charges all National Pollution Discharge Elimination System (“NPDES”) permits to be written so that permittees are required to meet water quality standards.¹⁴ Although reviewing courts have applied this principle to the MS4 context in different ways,¹⁵ jurisdictions from Pennsylvania to California include such a requirement in

¹³ See Permit, Part I. D.1.d (5)(a).

¹⁴ E.g., CWA §301((b)(1)(C), 33 U.S.C. §1311(b)(C); 40 C.F.R. §122.4(d); *also see* 40 C.F.R. §122.44(d)(1) (regulations requiring that NPDES permits ensure compliance with water quality standards).

¹⁵ Contrast *Defenders of Wildlife v. Browner*, 191 F.3d 1159 (1999) (regarding EPA-issued permit), with a slightly more nuanced reading in *In re Gov’t. of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 342-43, 2002 WL 257698 (E.P.A.), 11-12 (2002) [hereinafter *In re Gov’t of D.C.*].

their MS4 permits, under (at a minimum) the discretion the Ninth Circuit recognized as having been granted to EPA (and by extension to delegated state permitting authorities).¹⁶ Virginia is one of the jurisdictions that has chosen to require all Virginia stormwater management program permits (called “state permits”) issued to Phase I MS4 operators to achieve water quality standards established under the State Water Control Law and Clean Water Act (“CWA”) § 303¹⁷ —a decision that we applaud and that is clearly warranted where, as here, impaired waters have been listed pursuant to CWA §303(d), and TMDLs have been established, in whole or in part, because other controls have proven inadequate to bring about sufficient progress toward restoration of impaired waters.¹⁸

Moreover, MS4 permits must “require controls to reduce the discharge of pollutants to the maximum extent practicable (“MEP”).”¹⁹ In Virginia, which incorporates federal law on this point, the standard is an iterative one “which evolves over time as urban runoff management knowledge increases. As such, the operator's MS4 program plan must continually be assessed and modified to incorporate improved programs, control measures, BMPs, etc., to attain compliance with water quality standards.”²⁰

We believe the Permit’s way of addressing these standards falls short, despite some helpful discussion in the Fact Sheet. We are troubled, first, by a statement in the Permit’s

¹⁶ See, e.g., Commonwealth of Pennsylvania, *Authorization to Discharge Under the National Pollutant Discharge Elimination System (NPDES), General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s), PAG-13* (June 2011), at Part C(2), 17-18; California Regional Water Quality Control Board, *San Francisco Bay Region Stormwater Order R2-2009-0074 NPDES Permit No. CAS612008* (October 14, 2009), at 8-9; California Regional Water Quality Control Board, *San Diego Region Order No. R9-2009-0002, NPDES Permit No. CAS0108740* (December 16, 2009) at 18; and eight additional California permits containing such requirements. Several federal and state courts have agreed that the permitting agency has the authority to require compliance with water quality standards. See, e.g., *City of Abilene v. U.S.*, 325 F. 3d 657 (5th Cir. 2003).

¹⁷ See 9VAC25-870-460 C (“each [VSMP] permit shall include conditions meeting the following requirements when applicable. . . Any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under §§ 301, 304, 306, 307, 318 and 405 of the CWA necessary to: 1. Achieve water quality standards established under the State Water Control Law and § 303 of the CWA . . . a. Limitations must control all pollutants or pollutant parameters. . . which the board determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any Virginia water quality standard.”)

¹⁸ Notably, in the District of Columbia, the Environmental Appeals Board appropriately instructed EPA’s Region 3, with respect to the District of Columbia’s MS4 permit, to require compliance with water quality standards instead of the MEP standard: “[The Clean Water Act’s §301] has been implemented. . . through long-standing regulations that prohibit the issuance of an NPDES permit, ‘when the imposition of conditions cannot ensure compliance with applicable water quality requirements of all affected states.’ Just as the EAB ordered EPA to do in that case, Virginia should do here. See *In re: District of Columbia Water and Sewer Authority*, NPDES Appeal Nos. 05-02, 07-10, 07-11, and 07-12 at 25 – 33 (2008).

¹⁹ 33 U.S.C. 1342(p)(3)(B)(iii); 40 C.F.R. 122.34(a); 40 C.F.R. 123.25.

²⁰ 9VAC25-870-10. Indeed, the Fact Sheet accompanying this Permit expressly recognizes EPA Region III’s guidance: “[I]t is clear that EPA intends all municipal dischargers to achieve both technology-based and water quality-based limits. Because WQS are general more stringent than technology-based standards, the former will generally serve as the minimum floor for discharges. Therefore, the plain statutory language coupled with EPA’s own background document on the Phase II Storm Water Rule require that Phase I MS4 permittees comply with both WQS and the MEP standard, so that dischargers must achieve the more stringent limitation.”

Part 1.A.2, “Permittee Responsibilities” section: “The Department has determined that this program reduces the discharge of pollutants to the maximum extent practicable.” Such an assertion cannot with certainty be made where, as here, the Permit terms expressly contemplate ongoing modifications of the MS4 Program Plan as part of the iterative nature of the program and of the required addition of still-to-be-developed Action Plans by which the permittee is to achieve required reductions. We suggest the following language to make it clear that meeting MEP requires DEQ approval of all modifications and full implementation of the Permit terms.

Proposed language:

Part I.A.2. . . . The Department has determined that this program, *if modified by an approved, compliant TMDL Action Plan as required pursuant to Sections 1.D.1. and 1.D.2. and if fully implemented*, will reduce the discharge of pollutants to the maximum extent practicable. Where wasteloads have been allocated for pollutant(s) of concern in an approved TMDL, the permittee shall implement the special conditions as set forth in Part 1.D of this permit. Compliance with the requirements of the permit shall also constitute adequate progress for this permit term toward [] *meeting* the applicable TMDL wasteload allocations, [] such that the discharge does not cause or contribute to violation of *state* water quality standards.

C. The Permit’s Chesapeake Bay Special Condition Must Be Improved.

1. Compliance with Phase I WIP Commitments Must Rest on Full Implementation.

The Permit prematurely asserts that compliance with its terms amounts to compliance with applicable water quality standards, including those in the Bay TMDL and the WIPs. One example of this problem is: “[T]his state permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of 5% of L2 as specified in the 2010 Phase I WIP.”²¹ However, such assertions are potentially inaccurate, as the permittee has not yet devised, much less submitted for DEQ’s review and approval, the Chesapeake Bay Action Plan that will set out the permittee’s proposed pollutant reduction program.²² We suggest the following modifications:

Proposed Language:

Part I. D.1. *If fully implemented with an approved, compliant TMDL Action Plan*, this state permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and Phase II WIPs. . . .²³

²¹ Permit, at Part I. D. 1.

²² Permit, at Part. I. D. 1 (b) (1).

²³ See *id.*

Ms. Jaime Bauer
Office of VPDES Permits
Virginia Department of Environmental Quality
November 3, 2014
Page Seven

We are also troubled by the language in Part I.D.1 (c)(2), which suggests that implementation of some, but not all, of the Chesapeake Bay Action Plan will be considered “implementation to the maximum extent practical and demonstrates adequate progress.”²⁴ We suggest the following modification:

Proposed Language:

Part I.D.1(c)(2)(d). Implementation of *the TMDL action plan required in Part I.D.1.b(1), including the means and methods sufficient to meet 5% required reductions of POC loads from existing sources defined in this state permit in accordance with the Chesapeake Bay TMDL Watershed Implementation Plan.*

2. *The Permit’s Chesapeake Bay Special Condition Must Be Revised to Clarify that Annual Benchmarks are Required, Not Optional.*

This Permit contemplates that full compliance with required nitrogen, phosphorus, and sediment reductions will extend beyond a single permit term. In these circumstances, meeting the Permit’s required “enforceable framework”²⁵ means that stated milestones toward full compliance that are met on a detailed schedule are crucial. Indeed, Virginia law specifically directs that permits with new or more restrictive water-quality based effluent limitations and a compliance schedule longer than one year “set forth interim *requirements* and the dates for their achievement, with the time between interim dates not to exceed one year.”²⁶

While the Permit’s Chesapeake Bay Special Condition currently requires the permittee to develop a compliance schedule for the Chesapeake Bay Action Plan,²⁷ the details are unclear.

²⁴ Permit, at Part I.D.1(c)(2).

²⁵ See 9VAC25-870-490; see also *Miccosukee Tribe of Indians v. EPA*, 706 F. Supp. 2d 1296, 1324 (S.D. Fl. 2010). See also U.S. EPA, MS4 Permit Improvement Guide, EPA 833-R-10-001 (April 2010), 5-6 (“First, and most importantly, permit provisions should be clear, specific, measurable, and enforceable. Permits should include specific deadlines for compliance, incorporate clear performance standards, and include measurable goals or quantifiable targets for implementation. Doing so will allow permitting authorities to more easily assess compliance, and take enforcement actions as necessary.”); see also *In re: District of Columbia Water and Sewer Authority*, NPDES Appeal Nos. 05-02, 07-10, 07-11, and 07-12 at 25 – 33 (2008).

²⁶ See 9VAC25-870-490 (“ . . . [I]f a state permit establishes a schedule of compliance that exceeds one year from the date of state permit issuance, the schedule shall set forth interim requirements and the dates for their achievement. a. The time between interim dates shall not exceed one year. b. If the time necessary for completion of any interim requirement is more than one year and is not readily divisible into stages for completion, the state permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.”); see also U.S. EPA, MS4 Permit Improvement Guide, EPA 833-R-10-001 (April 2010), 5-6; U.S. EPA, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* (July 2010), §IV(A)(10) (“Permit provisions must . . . be clear, objective, specific, measurable, and enforceable. Permits should incorporate . . . measurable goals or quantifiable targets for implementation and include specific deadlines for compliance.”).

²⁷ Permit, at Part I. D.

Thus, some Permit language suggests that the TMDL Action Plan *schedule* is enforceable: Part I.D.1.(c)(1) requires the permittee to implement the TMDL Action Plan “according to the schedule therein.”²⁸ However, other language suggests that adhering to the annual benchmarks in the schedule is optional: The Permit indicates that annual benchmarks “*should*” (rather than “*must*”) be included in the schedules.²⁹ To avoid ambiguity and confusion and to ensure that the compliance schedule requirements are met, the Permit should clarify that both the overall schedule and the included annual benchmarks are enforceable requirements of the Action Plan.

Proposed Language:

Part I.D.1.b.(1)(f). The means and methods, such as the management practices and retrofits programs that will be utilized to meet the required reductions identified in Part I.D.1.b.(1)(e) and a schedule to achieve those reductions. The schedule ~~should~~ *shall* include annual, *enforceable* benchmarks to demonstrate the on-going progress in meeting the reductions. . .

3. *The Permit Must Be Revised to State that the Bay TMDL Action Plan is Incorporated into the Permit as a Major Modification.*

The Permit must be amended to clarify that, once approved by DEQ, the Bay TMDL Action Plan (including effluent limits) is incorporated into and made a part of the Permit.³⁰ An example of the proposed language may be found in Part I.D.2 (a)(3), clarifying that the TMDL Action Plans (other than the Chesapeake Bay TMDL) are incorporated by reference into the Permit.

Equally important, the Permit should be amended to clarify that the adoption of the Bay TMDL Action Plan is a major modification,³¹ subject to the full procedural requirements provided by the Virginia Administrative Code. We recognize and appreciate that the current version provides for public comment at the County level and DEQ approval, but nothing in the Permit provides the necessary assurances that the County comment and/or hearing structure will accord appropriate public participation opportunities enshrined by the Clean Water Act which requires permitting authorities like DEQ to “provide for, encourage, and assist the participation of the public”³² and expressly directs that “[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by

²⁸ *Id.*

²⁹ *Id.*

³⁰ See 33 U.S.C. 1362 (11) (defining effluent limits).

³¹ See 9VAC25-870-630 (“Modification or revocation and reissuance of state permits. A. Causes for modification. The following are causes for modification but not revocation and reissuance of state permits except when the state permittee requests or agrees. 1. There are material and substantial alterations or additions to the permitted facility or activity that occurred after state permit issuance that justify the application of state permit conditions that are different or absent in the existing state permit.”).

³² 40 C.F.R. §25.3.

the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States.”³³

D. The Permit’s Monitoring Requirements Should Be Strengthened.

Accurate, representative monitoring is an essential tool, as Virginia law recognizes, for understanding the effectiveness of the stormwater program and to help with designing any needed modifications.³⁴ The Draft Permit includes several important monitoring provisions, including the in-stream monitoring discussed above, biological stream monitoring, and monitoring for floatables and structural controls.³⁵ We believe these provisions should be strengthened in several respects.

First, as noted above, the in-stream monitoring section will provide an important tool for assessing the success of Chesterfield’s stormwater program. Currently, however, the text of the Permit does not list any requirements for the location of the five in-stream monitoring sites. We urge DEQ, therefore, to amend these provisions to specify the streams and locations that will be subject to in-stream monitoring or, at a minimum, to outline the factors to be considered or met by the permittee when selecting stream monitoring sites. For example, the Permit should require monitoring sites to be selected from among representative outfalls.³⁶ Moreover, Chesterfield County includes all or parts of 18 different HUC 12-digit watersheds; sampling stations should be distributed in a representative manner over the County MS4’s entire service area. Such specification will ensure that the data help the permittee in accurately assessing the effectiveness of the stormwater program. We also suggest that DEQ should require incorporating discharge measurements ($\text{m}^3 \text{sec}^{-1}$) at the time of in-stream sampling to substantially increase the value of the data, given the Bay TMDL’s focus on loads of which discharge is a critical component.

Second, we believe the Permit’s requirements for biological stream monitoring are insufficiently detailed to ensure they will provide helpful data. Surprisingly, these provisions—unlike the in-stream monitoring provisions—do not expressly incorporate the Permit’s general monitoring protocols in Part II.A. That omission—and the contrast with the Permit’s treatment for in-stream monitoring—casts doubt on whether the permittee must follow those protocols for biological monitoring or, instead, whether the permittee has a free hand in devising its own protocols, including selecting the streams to be monitored.³⁷

³³ 33 U.S.C. §1251(e).

³⁴ See 9VAC25-870-460 H (MS4 permits to require monitoring, including “type, intervals, and frequency sufficient to yield data that are representative of the monitored activity”).

³⁵ See Permit, at Part C, 1 and 2.

³⁶ See, e.g., 9VAC25-870-460 H (monitoring should yield data representative of the monitored activity); *Nat. Resources Def. Council v. Los Angeles County Flood Control Dist.*, 673 F. 3d 880, 889-90 (9th Cir 2011)(monitoring must be conducted at representative outfalls in order to effectively measure discharges from the MS4 and ascertain necessary improvements), rev’d on other grounds by *Los Angeles County Flood Control Dist. v. Nat. Resources Def. Council*, 13 S. Ct. 710 (2013).

³⁷ See, e.g., U.S. EPA, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* (July 2010), §IV(A)(8) (monitoring/evaluation metrics should include physical and biological indicators in receiving waters); Interim Permitting Approach for Water Quality Effluent Limitations in Storm Water Permits,

Nor does the sparse reference to EPA's Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers provide sufficient guidance. That document emphasizes that "[t]he choice of a particular protocol should depend on the purpose of the bioassessment, the need to document conclusions with confirmational data, and available resources,"³⁸ and the Permit does not specify the intended purpose of the required biological monitoring—whether it be characterizing the existence and severity of impairment to the water resource, helping to identify sources and causes of impairment, evaluating the effectiveness of control actions and restoration activities, or others. Finally, these biological monitoring provisions do not specify the stream or stream sites where monitoring will be conducted; in fact, under the present language, the five sites could all be located on the same stream.

To address these omissions and ensure compliance with Virginia law,³⁹ we urge DEQ to consider amending this section in a manner consistent with the biological stream monitoring provisions in the Arlington permit. That permit specifies the protocol to be followed, lists specific parameters to be assessed, requires sampling to be done twice per year in different seasons (January through June and July through December), and lists the streams and the 10 sites where biological monitoring is to occur. Unless such requirements are added to the Chesterfield permit, there is no assurance that the biological monitoring will prove helpful.

E. Infrastructure Coordination and Roadways.

According to the Fact Sheet, the Virginia Department of Transportation is responsible for 99 percent of the roadways and rights of way in the County.⁴⁰ Unless, therefore, the provisions describing the respective responsibilities of VDOT and the permittee are essentially seamless, there is a significant risk that polluted runoff from Chesterfield County will not be controlled. Yet we believe unduly broad areas of ambiguity regarding the relationship remain. We urge DEQ to rectify the following areas of concern.

Part I.B.2 (n)(2). This provision requires the permittee to "identify any uncertainty" on ownership or location of MS4 components in physically connected MS4s and "work[] to

September 1996, EPA, Office of Water (EPA 833-D-96-001), at 7. *See also* 40 C.F.R. 122.44(i), concerning monitoring requirements in all permits as applicable, and 40 C.F.R. §122.48(b), pertaining to required components of state NPDES permitting programs, which specifies that permits shall contain monitoring, "including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring."

³⁸ The original Rapid Bioassessment Protocols were designed as inexpensive screening tools for determining if a stream is supporting or not supporting a designated aquatic life use. The basic information generated from these methods would enhance the coverage of broad geographical assessments, such as State and National 305(b) Water Quality Inventories. However, members of a 1986 benthic Rapid Bioassessment Workgroup and reviewers of this document indicated that the Rapid Bioassessment Protocols can also be applied to other program areas. For example, studies for aquatic life use determination and those related to TMDLs can be done with a random (watershed or higher level) or targeted (site-specific) design.

³⁹ *See, e.g.*, 9VAC25-870-460 H.

⁴⁰ Fact Sheet, 9.

resolve such uncertainty.” *To avoid problems, the Permit must provide a timely means to resolve such uncertainty.*

Part I.B.2.(n)(3). This provision requires the permittee to coordinate with VDOT to identify areas within the County that drain to the VDOT MS4 and are not accounted for in either party’s TMDL Action Plan; and then to quantify such acres in Chesterfield’s Bay TMDL Action Plan. *To avoid problems, the Permit must specify that Chesterfield is required to implement means and methods to control pollution on such acres, in the same manner as the acres in the rest of its service area.*

We also urge that the Permit be strengthened to require the permittee to implement specific and appropriate BMPs on the one percent of roads it does maintain within its service area. Thus, for example, the current Permit merely requires the permittee to develop and maintain a list of county-maintained roads, streets, and parking lots that includes the miles of roadway treated with BMPs, and to develop and implement protocols for minimizing pollutant discharge from them.⁴¹ This does not appear to us to meet MEP standards. To improve the effectiveness of this requirement, we urge DEQ to require a street sweeping program with a minimum number of lane miles to be swept during the permit period.

F. Public Access.

The Permit currently requires the MS4 Program Plan to be publicly available but articulates this requirement in a manner that discourages true public access. Thus, it allows the permittee to post the current Plan on the permittee’s website or to make it available “in another location easily accessible to the public.”⁴² In another part of the Permit, the text provides, “[t]he permittee shall make available for public review the most current MS4 Program Plan upon request of interested parties in compliance with all applicable open records requirements.”⁴³ These references should be clarified to ensure that the current MS4 Program Plan is truly accessible and without recourse to the Freedom of Information Act. That means that the Permit should require the MS4 program Plan to be accessible on the County’s website *as well as* in hard copy at one or more locations easily accessible. As recognized in other parts of the Permit,⁴⁴ members of the public today reasonably expect to find public information on the internet.

G. Retrofitting on Prior Developed Lands, Tree Planting.

We appreciate the Permit’s requirement that all retrofits projects must be approved by DEQ to ensure they will reduce pollutants to the maximum extent practicable.⁴⁵ However, the number of required retrofits—five over the course of the Permit term—is insufficiently

⁴¹ Permit, Part I.B.2 (d).

⁴² Permit, Part I. B. 6.

⁴³ Permit, Part I.B. 1 (k) (4).

⁴⁴ See Permit, Part I. B. 1 (requiring County’s Stormwater Capital Improvement Plan to be placed on the website).

⁴⁵ Permit, Part I. B. 2. (c).

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aggressive.⁴⁶ Similarly disappointing is the absence of any requirement for planting trees. We recommend modifications to add retrofits and tree planting consistent with the example of the Arlington County permit.

H. The Permit Must Be Modified to Improve the MS4 Program Plan.

The MS4 Program Plan is disappointingly unambitious. Enhancing the program in the manner outlined below would yield important water quality benefits and provide greater visibility to the public of the County's stormwater work.

Changes due to infeasibility. The draft would allow the permittee to request the ability to eliminate, without replacement, any ineffective or infeasible (including cost-prohibitive) strategies, policies, and BMPs.⁴⁷ The Permit should be amended to require the permittee to first provide an analysis to DEQ showing how it will achieve the goals of any eliminated strategy, policy, or BMP.

MS4 Program Plan documents. The permit should specifically state that any document that forms part of the MS4 Program Plan is incorporated by reference.⁴⁸

Pesticide, Herbicide, and Fertilizer Application. The Permit should require accelerated development and implementation of nutrient management plans for County-owned land to achieve 75 percent of coverage within 36 months of permit issuance and 100 percent coverage within 60 months of permit issuance.⁴⁹

Illicit Discharges and Improper Disposal. The Permit should be modified to require enhanced inspection of a minimum of 30 miles of sanitary sewer annually, or 792,000 linear feet during this permit cycle.⁵⁰

Wet Weather Screening. The Permit should require development of a wet weather screening plan for at least five areas⁵¹ within the first 12 months of permit issuance and implementation of the plan within the second year of the permit cycle.

Industrial and High Risk. The Permit should be modified to clarify when the permittee must refer to DEQ any VPDES-permitted facility which discharges "significant pollutant

⁴⁶ Cf. Arlington County Phase I MS4 Permit.

⁴⁷ See Permit, Part I. A.7.3.

⁴⁸ See Permit, Part I.A. 7 (a).

⁴⁹ See Permit, Part I, B.2 (e).

⁵⁰ See Permit, Part I. B. 2 (f) (2).

⁵¹ See Permit, Part I.B. 2 (m) (2).

loadings to the MS4.”⁵² To reduce possible uncertainty, the circumstances requiring referral should be defined by specific numbers as reflected in *italics* below:

Proposed language:

Part I.B. 2.h (5)(c). Any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4 as determined by continued (*i.e., two consecutive occasions*) or regular (*i.e., two out of three consecutive occasions*) exceedances of monitoring benchmarks conducted as a requirement of the VPDES permit.

Storm Sewer Infrastructure Management. The Permit should require inspection of all of the industrial outfalls connected to the MS4 system at least every three years.

High Priority County Facilities. The County should be required, not only to develop and/or update and maintain individual stormwater pollution prevention plans (SWPPPs) for each high-priority municipal facility, as the Permit currently requires, but also to fully implement such SWPPPs.⁵³

Structural and Source Controls Compliance Monitoring and Tracking. Part I.C.4 (b)⁵⁴ should specify that the database of all stormwater management facilities brought on line for the reporting year should be updated within 12 months of permit issuance, rather than 36 months; this should be information mostly or already at hand.

I. The Permit Language on Non-Bay TMDLs Must Be Improved.

The Permit’s provisions for TMDLs other than the Bay TMDL should be improved in several respects. Action Plans for all TMDLs must include a compliance plan for meeting the WLA that specifies both a definite end date by when the WLA must be achieved (not simply an estimated end) and required benchmarks to show progress.⁵⁵ Further, unlike the Permit’s prescriptions for the Bay TMDL Action Plan, which includes provision for public comment, the Draft Permit makes no such provision for public notice and comment on proposed action plans for non-Bay (local) TMDLs. Public participation is required with respect to all local TMDL action plans, and must be included.

J. Technical Modification.

Part I.B.2 (a)(3) currently requires the permittee to maintain an accurate list of all “stormwater management controls” in the MS4 program plan that are more stringent than those required under “9VAC25-840-10 et seq. that have been adopted by ordinance in accordance with

⁵² See Permit, Part I.B. 2. h(5)(c).

⁵³ See Permit, Part I. B. 2. j(2)(b).

⁵⁴ See Part I.C.4 (b).

⁵⁵ See, e.g., *Miccosukee Tribe of Indians v. EPA*, 706 F. Supp. 2d 1296, 1324 (S.D. Fl. 2010).

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§62.1-44.15:65.” Based on the cited Code and Administrative Code provisions (both of which refer to erosion and sediment controls), we believe that this provision should refer to “erosion and sediment controls.”⁵⁶

CONCLUSION

As discussed above, we consider the Chesterfield Permit to mark an important step forward in meeting Virginia’s commitments to curb urban and suburban stormwater, the only major source of nutrient and sediment pollution that is still increasing. We urge DEQ and the County of Chesterfield to address our criticisms and suggestions to ensure the Permit as approved and implemented achieves its goals in a manner that conforms to law. If you wish to discuss CBF’s comments, please contact me at 804/780-1392 or at msanner@cbf.org. Thank you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Margaret Sanner", with a long horizontal flourish extending to the right.

Margaret L. Sanner
Virginia Assistant Director and Senior Attorney

cc: Scott B. Smedley, Director of Environmental Engineering, Chesterfield County
Jeff Corbin, Senior Advisor to the Regional Administrator Region III, EPA
Katherine Antos, Water Quality Team Leader, EPA
Ann Jennings, Virginia Executive Director, CBF
Lee Epstein, Director of Lands Program, CBF
Chris Moore, Virginia Senior Scientist, CBF
Joe Wood, Virginia Staff Scientist, CBF

⁵⁶ See also Permit, Part I.B.2 (b) (2), which refers to “stormwater management controls.”

Bauer, Jaime (DEQ)

From: Hammer, Rebecca [rhammer@nrdc.org]
Sent: Monday, November 03, 2014 12:16 PM
To: Bauer, Jaime (DEQ)
Subject: Comments on Chesterfield and Prince William County MS4 Permits
Attachments: CCWC Chesterfield and Prince William MS4 Comments.pdf

Attached please find the comments of National Parks Conservation Association, Natural Resources Defense Council, Potomac Conservancy, and Virginia Conservation Network (all members of the Choose Clean Water Coalition) on the draft Chesterfield County and Prince William County stormwater permits.

Please do not hesitate to contact us if you would like to discuss our comments further.

Sincerely,
Becky Hammer

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**NATIONAL PARKS CONSERVATION ASSOCIATION
NATURAL RESOURCES DEFENSE COUNCIL
POTOMAC CONSERVANCY
VIRGINIA CONSERVATION NETWORK**

November 3, 2014

Virginia Department of Environmental Quality
Office of VPDES Permits
c/o Jamie Bauer
629 E. Main Street, P.O. Box 1105
Richmond, VA 23218
Submitted via email to jaime.bauer@deq.virginia.gov

**Re: Comments on Draft MS4 Permits No. VA0088609 and VA0088595 for
Chesterfield County and Prince William County, Virginia**

Dear Department of Environmental Quality (DEQ):

Thank you for this opportunity to comment on Draft Permits No. VA0088609 and VA0088595, the Virginia Stormwater Management Program (VSMP) permits for stormwater discharges from the municipal separate storm sewer systems (MS4s) owned and operated by Chesterfield County and Prince William County (“the Draft Permits”).¹ These Draft Permits are critically important to Virginia’s efforts to clean up water bodies in Chesterfield and Prince William Counties and, further downstream, the Chesapeake Bay.

These comments are submitted on behalf of the undersigned members of the Choose Clean Water Coalition. Our groups are nationwide, regional, and local environmental organizations working to protect and restore water quality in Virginia and the Chesapeake Bay region through advocacy, enforcement, and education. Members of these groups use and enjoy waters adversely affected by Chesterfield County and Prince William County MS4 discharges, including the James, Potomac, and Occoquan Rivers.

We are concerned that the Draft Permits in several aspects fail to meet the requirements of federal and state law, and are inadequate to control pollution and protect the region’s waters,

¹ Virginia Department of Environmental Quality (DEQ), Permit No. VA0088609 – Authorization to Discharge Under the Virginia Stormwater Management Program and the Virginia Stormwater Management Act – Chesterfield County (Draft) (Oct. 2014), *available at* <http://www.deq.virginia.gov/Portals/0/DEQ/Water/PollutionDischargeElimination/PublicNotices/VA0088609-Chesterfield-DraftPermit-2014-09-30.pdf>; Virginia DEQ, Permit No. VA0088595 – Authorization to Discharge Under the Virginia Stormwater Management Program and the Virginia Stormwater Management Act – Prince William County (Draft) (Oct. 2014), *available at* <http://www.deq.virginia.gov/Portals/0/DEQ/Water/PollutionDischargeElimination/PublicNotices/VA0088595-PrinceWilliam-DraftPermit-2014-09-30.pdf> (hereinafter “Draft Permits”).

which are threatened by persistent, pervasive pollution from urban runoff. We address the deficient elements of both Permits together in these comments, as the Draft Permits are virtually identical.

I. Standards Governing Adoption of the Draft Permits

DEQ may only issue a discharge permit upon its determination that the permit's conditions provide for compliance with the applicable requirements of federal and state law.² In addition to compliance with this substantive legal standard, DEQ must comply with the well-settled standards that govern its administrative decision making. Under Virginia administrative law principles, the issuance of a permit may not be arbitrary or capricious.³ The Draft Permits must therefore be supported by evidence that justifies the Board's decision to include, or not to include, specific requirements.

II. Water Quality in Receiving Waters Does Not Meet Clean Water Act Requirements

In developing the MS4 permitting program, Congress and the U.S. Environmental Protection Agency (EPA) recognized the serious damage polluted stormwater runoff causes local waterways. The wisdom of that judgment remains true today: according to the National Research Council, "Stormwater runoff from the built environment remains one of the great challenges of modern water pollution control, as this source of contamination is a principal contributor to water quality impairment of water bodies nationwide."⁴ Locally, stormwater from rain or snow melt runs through Chesterfield and Prince William Counties' MS4s and flows untreated into local waterways. Stormwater is the fastest growing source of pollution to the Chesapeake Bay.⁵ According to the Chesapeake Bay total maximum daily load (TMDL), 33% of the nitrogen, 50% of the phosphorus, and 39% of the sediment delivered by stormwater runoff to the Bay come from Virginia.⁶

After flowing off of these impervious surfaces in Chesterfield County and Prince William County, stormwater – and its associated pollution – is discharged from the counties' hundreds of storm sewer outfalls directly into local water bodies. Urban runoff from storm sewers is listed as

² 4 Va. Admin. Code § 50-60-310(C)(1).

³ See *Bowman Apple Products Co., Inc. v. Virginia State Water Control Bd.*, 650 S.E.2d 548 (Va. Ct. App. 2007).

⁴ National Research Council, *Urban Stormwater Management in the United States* vii (2008), available at http://www.epa.gov/npdes/pubs/nrc_stormwaterreport.pdf (hereinafter "*Urban Stormwater*").

⁵ Chesapeake Bay Program, "Stormwater Runoff," http://www.chesapeakebay.net/issues/issue/stormwater_runoff (last visited Oct. 24, 2014).

⁶ EPA Region 3, Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment at 4-5—4-6 (Dec. 2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/CBayFinalTMDLSection4_final.pdf.

a cause of impairment in Chesterfield County water bodies including Powhite Creek and Reedy Creek, along with Prince William County water bodies such as Bull Run and Neabsco Creek.⁷

DEQ issued Chesterfield County and Prince William County their current MS4 permits in 2003; the permits have been administratively continued since they expired in 2008. Despite over ten years of MS4 implementation in these jurisdictions, poor water quality continues to be a problem. Chesterfield County water quality data from 2013 indicated that 80% of monitored sites were either “severely impaired” or “moderately impaired.”⁸ In fact, Virginia’s 2012 listing of impaired surface waters shows that many water bodies in both Counties are failing to meet applicable water quality standards.⁹ This marked lack of progress in achieving water quality standards confirms the need for effective and enforceable MS4 permits that will stem stormwater pollution and achieve improvements in water quality.

III. The Draft Permits’ Failure to Ensure Compliance with Water Quality Standards and Total Maximum Daily Loads Violates State and Federal Law

The stated goal of the Clean Water Act is the complete elimination of the discharge of pollutants into the Nation’s waters.¹⁰ In keeping with this goal, the Act requires each state to adopt and submit for federal approval water quality standards for all waters within its boundaries.¹¹ When Congress enacted the 1972 amendments that created the modern Clean Water Act, Council on Environmental Quality (CEQ) Chairman Train explained the role of water quality standards, stating, “Speaking very generally, the whole permit program is tied to the water quality program standards and is a mechanism designed to reach those standards.”¹²

For this reason, the Act and implementing regulations require that all National Pollutant Discharge Elimination System (NPDES) permits must include conditions adequate to “ensure compliance” with applicable water quality standards.¹³ Further, the regulations require each NPDES permit to contain limitations on all pollutants or pollutant parameters that “are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.”¹⁴ The EPA’s Environmental Appeals Board

⁷ U.S. EPA, “AskWATERS” Database (compiling data from current approved state 305(b) reports), <http://iaspub.epa.gov/pls/waters/f?p=ASKWATERS:EXPERT:0>.

⁸ Chesterfield County Department of Environmental Engineering, *2013 Assessment of the Biology, Habitat and Chemistry of Select Streams and Watersheds of Chesterfield County, Virginia* at 2 (Jan. 2014), available at <http://www.chesterfield.gov/WorkArea/DownloadAsset.aspx?id=8590041862>.

⁹ Virginia DEQ, *Final 2012 305(b)/303(d) Water Quality Assessment Integrated Report* at Appendix 1 (approved Dec. 12, 2013), available at [http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityAssessments/2012305\(b\)303\(d\)IntegratedReport.aspx](http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityAssessments/2012305(b)303(d)IntegratedReport.aspx).

¹⁰ 33 U.S.C. § 1251(a).

¹¹ 33 U.S.C. §§ 1311(b)(1)(C), 1313.

¹² Remarks of CEQ Chairman Train, 92 Cong. S4340 (June 22, 1971).

¹³ 40 C.F.R. § 122.4(d); *see also* 33 U.S.C. §§ 1311(b)(1)(C), 1342(a).

¹⁴ 40 C.F.R. § 122.44(d)(1)(i).

has held that this requirement applies equally to MS4 permits.¹⁵ In the words of EPA’s General Counsel, “[t]he better reading of Sections 402(p)(3)(B) and 301(b)(1)(C) [of the Clean Water Act] is that all permits for MS4s must include any requirements necessary to achieve compliance with WQS [water quality standards].”¹⁶ In accordance with this federal requirement, Virginia law prohibits DEQ from issuing stormwater discharge permits “[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states.”¹⁷

In addition, all NPDES permits must contain requirements “consistent with the assumptions and requirements of any available wasteload allocation.”¹⁸ Wasteload allocations (WLAs) represent the maximum amount of pollutant that a source – such as the Chesterfield or Prince William County MS4 – can discharge into a water body each day and still attain water quality standards, in accordance with that water body’s total maximum daily load (TMDL).¹⁹ Once a point source such as an MS4 is assigned a WLA, that WLA must be implemented through a NPDES permit.²⁰ EPA guidance clearly states that the regulatory requirement to be “consistent with” WLAs means that “the permit’s administrative record needs to provide an adequate demonstration that, where a best management practice (BMP)-based approach to permit limitations is selected, the BMPs required by the permit will be sufficient to implement applicable WLAs.”²¹

Despite the clear legal requirement for the Draft Permits to ensure compliance with WQS and TMDL WLAs, they do not do so. As an initial matter, the Draft Permits contain no requirements whatsoever regarding the attainment of water quality standards in impaired waters that lack TMDLs. As a result, the Draft Permits violate state and federal requirements for all NPDES permits to contain limitations necessary to ensure that water quality standards will be met.²² DEQ has not yet developed TMDLs for many impaired water bodies in Chesterfield and Prince William Counties, such as Powhite Creek, Falling Creek, Reedy Creek, Kingsland Creek, Redwater Creek, the Occoquan River, Quantico Creek, Marumsco Creek, and more.²³ The

¹⁵ *In re Government of the District of Columbia Municipal Separate Storm Sewer System*, 10 E.A.D. 323, 329, 335-43 (EAB 2002).

¹⁶ Memorandum from E. Donald Elliott, Assistant Administrator and General Counsel, EPA, re: Compliance with Water Quality Standards in NPDES Permits Issued to Municipal Separate Storm Sewer Systems (Jan. 9, 1991) at 1.

¹⁷ 4 Va. Admin. Code § 50-60-310(C)(4).

¹⁸ 40 C.F.R. § 122.44(d)(1)(vii)(B).

¹⁹ 33 U.S.C. § 1313; 40 C.F.R. § 130.2(h).

²⁰ *See Friends of the Earth, Inc. v. EPA*, 446 F.3d 140, 143 (D.C. Cir. 2006) (“Once approved by EPA, TMDLs must be incorporated into permits.”).

²¹ Memorandum from James A. Hanlon, Director, EPA Office of Wastewater Management, re: Revisions to the November 22, 2002 Memorandum “Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs” (Nov. 12, 2010) at 4; *see also* 40 C.F.R. §§ 124.8, 124.9, 124.18.

²² 40 C.F.R. § 122.4(d); 33 U.S.C. §§ 1311(b)(1)(C), 1342(a); 4 Va. Admin. Code § 50-60-310(C)(4).

²³ Virginia DEQ, *2012 Impaired Waters – 303(d) List*, available at http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityAssessments/IntegratedReport/2012/ir12_Appendix1a_Category5_List.pdf.

Permits must ensure that the permittees will comply with water quality standards in these streams notwithstanding the lack of TMDLs.

Additionally, for water bodies that are subject to TMDLs, the Draft Permits limit the Counties' compliance obligations to the specific requirements set out in the Permits, which are not strong enough to ensure that the Counties will in fact attain TMDL wasteload allocations. The Draft Permits state: "Compliance with the requirements of this state permit shall also constitute adequate progress for this permit term towards complying with the assumptions and requirements of the applicable TMDL wasteload allocations, and such that the discharge does not cause or contribute to violations of the water quality standards."²⁴

This approach is inadequate for several reasons. First, the Draft Permits' requirement for the Counties to "meet 5% required reductions of [nitrogen, phosphorus, and sediment] loads from existing sources"²⁵ during this permit term is on its face inconsistent with the assumptions of the Chesapeake Bay TMDL and Virginia's EPA-approved implementation plans. Virginia's Phase I Watershed Implementation Plan stated:

The Commonwealth will utilize MS4 permits to assure BMP implementation on existing developed lands to achieve nutrient and sediment reductions equivalent to Level 2 (L2) scoping run reductions *by 2025* for state and local MS4 operators. ... MS4 operators will be given *three full permit cycles (15 years)* to implement the necessary reductions to meet the L2 implementation levels ... The baseline effort will be expected to be continued with an expectation of an additional 5% reduction of loads for existing developed lands to be met by the end of the first permit cycle. ... As a part of reapplication for the second cycle of permit coverage, the MS4 operator will provide a schedule of implementation of the means and methods to implement sufficient reductions to reach 35% of the L2 reductions for state and local MS4s and L3 for federal MS4s. As a part of reapplication for the third cycle of permit coverage, the MS4 operator will provide a schedule of implementation of the means and methods to implement sufficient reductions to reach the remaining L2 reductions for state and local MS4s and L3 for federal MS4s by the end of the third permit cycle.²⁶

When the Bay TMDL strategy was initially developed in 2010, fifteen years remained to achieve the full reductions. However, four years have passed without the issuance of a new permit for Chesterfield or Prince William County, and thus only two full permit terms remain until the 2025 deadline. Given the numerous delays in permit issuance and in light of the looming 2025 deadline, we believe that greater pollution reductions beyond 5% must be required in this permit

²⁴ Draft Permits at I.A.2.

²⁵ Draft Permits at I.D.1.c.2.d.

²⁶ Commonwealth of Virginia, *Chesapeake Bay TMDL Phase I Watershed Implementation Plan* at 91-93 (Nov. 2010), available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/finalWIPS/VirginiaWIPPortfolioNov292010.pdf (emphasis added).

cycle. Specifically, because the Phase I WIP planned for achievement of 40% reductions during the first two permit terms (5% and 35% respectively), the Draft Permits should require the Counties to achieve 40% of their L2 reductions during this term. This is necessary if Virginia is to have any chance of satisfying its obligations within the 2025 timeframe.

More fundamentally, the Permits' "adequate progress" approach to TMDL compliance may only be acceptable in certain cases when a permit's conditions set out a clear and enforceable path toward attainment by a certain future date, such as through a compliance schedule or implementation plan. Yet the Permits do not satisfy all of the substantive or procedural requirements for compliance schedules, as we explain below.

A. The Draft Permits' Requirements for the Contents of the TMDL Action Plans (Other than the Chesapeake Bay Action Plans) Are Legally Deficient

Federal regulations provide that if WQS or WLA compliance cannot be achieved immediately, a "permit may, when appropriate, specify a schedule of compliance leading to compliance with CWA and regulations."²⁷ The Clean Water Act defines a schedule of compliance as "a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard."²⁸ Schedules must be designed to achieve compliance "as soon as possible, but not later than the applicable statutory deadline under the CWA."²⁹ Virginia regulations confirm that "schedules of compliance...shall require compliance as soon as possible," and require that, "if a state permit establishes a schedule of compliance that exceeds one year from the date of state permit issuance, the schedule shall set forth interim requirements and the dates for their achievement," with the time between interim dates not to exceed one year.³⁰

In order to address the Chesapeake Bay TMDL, the permittees are directed to develop an "Action Plan" that will serve as a compliance schedule for meeting Bay TMDL WLAs. These Bay TMDL Action Plans meet the substantive requirements for compliance schedules, described above, as they are to include a schedule of pollution reductions, along with annual benchmarks.³¹ The Draft Permits also explicitly require the permittees to implement the Action Plan's schedule once developed.³² We support these requirements as both appropriate and legally necessary.

With regard to TMDLs other than the Chesapeake Bay, the permittees are likewise directed to develop "Action Plans" that will serve as compliance schedules for meeting applicable WLAs.

²⁷ 40 C.F.R. § 122.47(a).

²⁸ 33 U.S.C. § 1362(17); *see also* Md. Code Regs. 26.08.01.01(B)(79).

²⁹ 40 C.F.R. § 122.47(a)(1).

³⁰ 4 Va. Admin. Code §§ 50-60-490(A)(1), (4); *see also* 40 C.F.R. § 122.47(a)(3).

³¹ Draft Permits at I.D.1.b.1.e-f.

³² Draft Permits at I.D.1.c.1.

However, the Draft Permits' requirements for the contents of these other Action Plans are deficient in a two key respects.

First, while the Draft Permits require the permittees to identify activities to be implemented during the permit term,³³ they do not contain any requirements regarding how much actual pollution reduction those activities must be designed to accomplish in that time. It is impossible for a permittee to plan effectively without determining how much of the WLA attainment process will be completed during the permit term. Otherwise, its implementation actions could be selected at random. The Draft Permits should be revised to require the permittee to develop their Action Plans such that they will achieve a certain percentage of pollution reduction within the permit cycle timeframe.

Second, the Draft Permits do not require the permittees to update their plans to address wasteload allocations in TMDLs that are adopted after the Permits are finalized. Rather, the Draft Permits require the Action Plans to address only "new or modified requirements established under this Special Condition for pollutants identified in TMDL wasteload allocations approved *prior* to the effective date of this state permit."³⁴ Consistency with wasteload allocations is a core Clean Water Act requirement and an integral component of these Permits, and it must be maintained throughout the permit cycle.³⁵ Permittees should not be allowed to ignore applicable wasteload allocations for five (or perhaps more) years until they are issued a new MS4 permit. EPA Region III guidance confirms that "Permits should include provisions that allow reopening and modification of permits if new WLAs are adopted during the permit term."³⁶ The Permits should require Action Plans to be updated on an annual basis as needed to incorporate compliance schedules for newly approved TMDL wasteload allocations.

B. The Draft Permits' Procedural Requirements for the Approval of Action Plans Are Unlawful Because They Do Not Provide for the Plans to Be Incorporated into the Permits

In addition to the defects of the substantive requirements discussed above, the Draft Permits are procedurally deficient because they do not provide for Action Plans to be incorporated into the Permits after DEQ approves them.

As discussed above, federal and state regulations make clear that compliance schedules must be contained *within* permits.³⁷ The Draft Permits, however, state that Chesapeake Bay TMDL Action Plans will "become effective and enforceable upon written approval from the

³³ Draft Permits at I.D.2.a.

³⁴ Draft Permits at I.D.2.a.1.

³⁵ 40 C.F.R. § 122.44(d)(1)(vii)(B).

³⁶ U.S. EPA Region III, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* at 4 (2010), available at

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf.

³⁷ See 40 C.F.R. § 122.47(a); 4 Va. Admin. Code §§ 50-60-490(A)(4).

Department.”³⁸ For TMDL Action Plans other than the Chesapeake Bay, the Draft Permits state that the plans will be incorporated into the Permits, but only by reference.³⁹ Both of these specified procedures are unlawful.

Incorporating the TMDL Action Plans into the Permits themselves is required by law. The Action Plans will contain substantive requirements – including compliance schedules – with which the Counties must comply.⁴⁰ As such, they plainly constitute restrictions on the Counties’ discharges of pollutants, meeting the definition of effluent limitations.⁴¹ In fact, the Clean Water Act explicitly defines “effluent limitations” as “including schedules of compliance.”⁴² Consequently, the Action Plans must be incorporated into the Permits.

Federal regulations specify that the modification of a compliance schedule – such as the adoption of these Action Plans – is cause for a major permit modification.⁴³ Federal regulations further state that major permit modifications must follow all permit issuance procedures, including public notice and comment, an opportunity for a public hearing, and the right to appeal.⁴⁴

By failing to provide for incorporation of the Action Plans via the major modification process, the Draft Permits deprive citizens of their legally guaranteed rights to participate in the development of these plans. Virginia law states that any interested person may submit written comments on a draft state permit and may request a public hearing, and that DEQ shall hold such a hearing when it finds a significant degree of public interest in a draft permit.⁴⁵ This requirement conforms to the federal Clean Water Act policy that permitting authorities “shall provide for, encourage, and assist the participation of the public.”⁴⁶ As the Second Circuit has explained, “Congress clearly intended to guarantee the public a meaningful role in the implementation of the Clean Water Act.”⁴⁷ This pivotal role is enshrined in the Act’s express command that “[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States.”⁴⁸

The public has had an opportunity to comment and request hearings regarding these Draft Permits. The Draft Permits, however, do not themselves contain all of the substantive

³⁸ Draft Permits at I.D.1.b.4.

³⁹ Draft Permits at I.D.2.a.3.

⁴⁰ See Draft Permits at I.D.1.c.1 (“The permittee *shall implement* the TMDL action [plan] required in Part I.D.1.b.1 of this state permit according to the schedule therein.”).

⁴¹ 33 U.S.C. § 1362(11).

⁴² *Id.*

⁴³ 40 C.F.R. § 122.62(a)(4).

⁴⁴ 40 C.F.R. § 122.62 (cross-referencing 40 C.F.R. Part 124).

⁴⁵ 4 Va. Admin. Code §§ 50-60-540, 50-60-550(A)(1).

⁴⁶ 40 C.F.R. § 25.3.

⁴⁷ *EDC*, 344 F.3d at 856.

⁴⁸ 33 U.S.C. § 1251(e).

requirements with which the permittees must comply; rather, they defer the development of those requirements until later, when the permittee is authorized to devise its TMDL Action Plans (the contents of which are themselves effluent limitations, as described above). As a result, DEQ must provide for another public participation opportunity at the point when those programs are actually developed. As the Ninth Circuit has held, permittee-developed documents “that contain the substantive information about how the operator of [an] MS4 will reduce discharges to the maximum extent practicable” must be “subject to the public availability and public hearings requirements of the Clean Water Act.”⁴⁹

Incorporating the Action Plans into the Permits must be done via the formal permit modification process so that the public has the opportunity to exercise the above-described rights: commenting to DEQ on its approval of the plans, and challenging that approval if necessary. The fact sheets accompanying the Draft Permits mention that public comment is required during the development of the Action Plans, but that requirement does not appear within the text of the Draft Permits themselves. Even if it did, it still would not address the fact the Draft Permits’ prescribed approval procedures fail to make the plans reviewable at the time of the incorporation.

Ultimately, to comply with the Clean Water Act and Virginia law, the Draft Permits must be revised to account for the fact that a 5% pollution reduction is no longer sufficient to ensure attainment of Bay TMDL objectives by 2025. The Permits must also make clear that discharges from the permittees’ MS4s that cause or contribute to the violation of water quality standards are prohibited, and to require that the Counties must attain specific pollutant reductions during the permit term, and ultimately all applicable wasteload allocations by a date certain, in compliance with TMDL Action Plans that DEQ will approve and incorporate into the Draft Permits via the permit modification process as enforceable permit terms. Such plans must contain enforceable interim milestones with associated mandatory pollutant reductions so that the permittee is held accountable for staying on track. Finally, the Permits must provide for the Action Plans to include a sound rationale for determining that their compliance schedules meet the requirement to comply with standards “as soon as possible.”⁵⁰

IV. The Draft Permits Fail to Require the Permittees to Reduce Their Discharges of Stormwater Pollution to the Maximum Extent Practicable

The federal Clean Water Act (CWA) states that MS4 permits “shall require controls to reduce the discharge of pollutants to the *maximum extent practicable*,” otherwise known as the “MEP” standard.⁵¹ Likewise, CWA regulations mandate that MS4 permits “will require at a minimum that [regulated entities] develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from [their] MS4[s] to the *maximum extent*

⁴⁹ *EDC*, 344 F.3d at 857.

⁵⁰ 40 C.F.R. § 122.47(a)(1).

⁵¹ 33 U.S.C. § 1342(p)(3)(B)(iii) (emphasis added).

practicable.”⁵² Critically, it is the responsibility of the permitting authority – rather than the permittee – to determine whether the permittee is meeting the MEP standard.⁵³

Courts have held that the phrase “‘to the maximum extent practicable’ does not permit unbridled discretion. It imposes a clear duty on the agency to fulfill the statutory command to the extent that it is feasible or possible.”⁵⁴ While the term “practicable” is not defined in the municipal stormwater context, “practicable” as used in a different section of the Clean Water Act has been defined as meaning that technology is required unless the costs are “wholly disproportionate” to pollution reduction benefits.⁵⁵ As one state hearing board has held:

[MEP] means to the fullest degree technologically feasible for the protection of water quality, except where costs are wholly disproportionate to the potential benefits. ... This standard requires more of Permittees than mere compliance with water quality standards or numeric effluent limitations designed to meet such standards. ... The term “maximum extent practicable” in the stormwater context implies that the mitigation measures in a stormwater permit must be more than simply adopting standard practices. This definition applies particularly in areas where standard practices are already failing to protect water quality.⁵⁶

Nor is MEP a static requirement: the standard anticipates and in fact requires new and additional controls to be included with each successive permit. As the EPA has explained, NPDES permits, including the MEP standard, will “evolve and mature over time” and must be flexible “to reflect changing conditions.”⁵⁷ “EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards. Successive iterations of the mix of BMPs and measurable goals will be driven by the objective of assuring maintenance of water quality standards.”⁵⁸ In other words, successive iterations of permits for a given jurisdiction will necessarily evolve and contain new and more stringent requirements for controlling the discharge of pollutants in runoff.

The Draft Permits fail to meet the MEP standard in several respects. First, the retrofit requirements for Chesterfield County – five projects – fall short of the seven retrofit projects required in the Prince William County draft as well as the recently issued Arlington County

⁵² 40 C.F.R. § 122.34(a) (emphasis added). States such as Virginia that have been delegated authority to implement the NPDES program must administer their programs in conformance with this federal requirement. 40 C.F.R. § 123.25.

⁵³ *Environmental Defense Center v. EPA*, 344 F.3d 832, 855-56 (9th Cir. 2003) (hereinafter “EDC”).

⁵⁴ *Defenders of Wildlife v. Babbitt*, 130 F.Supp.2d 121, 131 (D.D.C. 2001) (internal citations omitted); *see also Friends of Boundary Waters Wilderness v. Thomas*, 53 F.3d 881, 885 (8th Cir. 1995) (“feasible” means “physically possible”).

⁵⁵ *Rybachek v. EPA*, 904 F.2d 1276, 1289 (9th Cir. 1990).

⁵⁶ *North Carolina Wildlife Fed. Central Piedmont Group of the NC Sierra Club v. N.C. Division of Water Quality* 2006 WL 3890348 at Conclusions of Law 21-22 (N.C.O.A.H. Oct. 13, 2006) (internal citations omitted).

⁵⁷ 55 Fed. Reg. 47,990, 48,052 (Nov. 16, 1990).

⁵⁸ 64 Fed. Reg. 68,722, 68,754 (Dec. 8, 1999).

permit. DEQ has found the implementation of seven retrofit projects to be practicable in these other jurisdictions, but has offered no explanation (beyond a summary statement in the fact sheet) as to why a similar requirement is not practicable in Chesterfield County. DEQ must provide a rationale for imposing obligations in Chesterfield that are weaker than those it has deemed practicable elsewhere. It must also ensure through its review process that the pollutant reductions achieved through these retrofit projects meet the MEP standard, including in comparison to the reductions achieved through the greater number of projects required of Prince William and Arlington Counties.

Second, several other programmatic requirements in both of the Draft Permits fall short of what is commonly required of other Phase I MS4 permittees. For example, the Draft Permits contain very weak requirements to address runoff from county-owned streets: they require the permittees to document ongoing efforts and to implement protocols “designed to minimize pollutant discharge,” with no associated performance metrics. They further fail to require basic roadway BMPs like street sweeping.⁵⁹ These proposed provisions, by allowing the Counties to develop their own requirements without DEQ review, fail to ensure that the Counties will reduce the stormwater pollution from their roadways to the maximum extent practicable.⁶⁰ Further, they are also far weaker than the requirements in MS4 permits for other jurisdictions in the region. Arlington County’s permit requires it to sweep a minimum of 25,000 lane miles during its permit cycle.⁶¹ The District of Columbia is required to sweep no less than 641 acres of roadway in the MS4 area according to a detailed schedule.⁶² The Draft Permits must incorporate similarly objective performance metrics, or at the very least provide for DEQ to review the Counties’ proposed roadway management protocols to verify that they meet the MEP standard.

Third, the Draft Permits also fail to provide sufficient DEQ oversight of another permittee program: the Counties’ strategies to address maintenance of stormwater controls. These strategies are enormously important due to the widespread problem throughout the region of stormwater BMP failure due to insufficient maintenance. Yet the Draft Permits propose for the Counties to submit their strategies after they have already begun implementing them in one of their annual reports.⁶³ These strategies must be approved by DEQ up-front to guarantee that the strategy complies with the Clean Water Act’s MEP standard.

It is not enough for a permit to direct a permittee to make a plan, on its own without regulatory and public oversight, to reduce discharges to the MEP; the permitting authority must verify that the permittee’s plans actually do meet the MEP standard. “[S]torm water management programs

⁵⁹ Draft Permits at I.B.2.d.

⁶⁰ See *EDC*, 344 F.3d at 854-56.

⁶¹ Virginia Department of Conservation and Recreation, Permit No. VA0088579 for Arlington County at I.B.2.d.1 (2013).

⁶² U.S. EPA Region III, NPDES Permit No. DC0000221 for the District of Columbia at 4.3.6 (2011, modified 2012), available at <http://www.epa.gov/reg3wapd/npdes/dcpermits.htm>.

⁶³ Draft Permits at I.B.2.b.

that are designed by regulated parties must, in every instance, be subject to meaningful review by an appropriate regulating entity to ensure that each such program reduces the discharge of pollutants to the maximum extent practicable.”⁶⁴ Permitting authorities must verify that all permittee plans and programs meet the MEP standard because the contents of those programs are themselves effluent limitations.⁶⁵ As a result, the contents of those plans must be reviewed by the permitting authority to ensure that they meet the legal standards applying to all effluent limitations – including, in the MS4 context, the MEP standard.⁶⁶

V. DEQ Has Failed to Justify the Draft Permits’ Monitoring Requirements

Under the Clean Water Act, all NPDES permits are required to contain monitoring provisions sufficient to assure compliance with permit conditions, “including conditions on data and information collection, reporting, and such other requirements as [the permitting authority] deems appropriate.”⁶⁷ Specifically, the Act states:

Whenever required to carry out the objective of this chapter, including but not limited to...(2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, or standard of performance...(A) the Administrator shall require the owner or operator of any point source to...(iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods)...as he may reasonably require.⁶⁸

Accordingly, federal regulations require all NPDES permits to contain monitoring requirements “to assure compliance with permit limitations.”⁶⁹ As such, these monitoring requirements must be of the “type, intervals, and frequency sufficient to yield data which are representative of the monitored activity.”⁷⁰ Virginia regulations track this federal requirement, stating, “Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.”⁷¹ As courts have noted, monitoring is essential to the entire NPDES program. “The

⁶⁴ *EDC*, 344 F.3d at 856.

⁶⁵ *Waterkeeper Alliance v. EPA*, 399 F.3d 486, 501 (2d Cir. 2005).

⁶⁶ *Id.*; see also *EDC*, 344 F.3d at 854-56.

⁶⁷ 33 U.S.C. § 1342(a)(2).

⁶⁸ 33 U.S.C. § 1318(a).

⁶⁹ 40 C.F.R. § 122.44(i).

⁷⁰ 40 C.F.R. § 122.48(b).

⁷¹ 4 Va. Admin. Code § 50-60-430(J)(1).

NPDES program fundamentally relies on self-monitoring.”⁷² “Clearly, unless there is some method for measuring compliance, there is no way to ensure compliance.”⁷³

The fact that these Draft Permits require chemical in-stream monitoring is a significant improvement over last year’s Arlington County MS4 permit, and one that will provide important information on receiving water quality. Nonetheless, DEQ has not provided evidence or other support that shows the Draft Permits’ proposed monitoring requirements are actually sufficient to yield data representative of the Counties’ stormwater discharges, or to assure compliance with the limitations contained with the Permits. Both of the Permits require the Counties to perform monitoring in five locations, but DEQ does not explain in the accompanying fact sheets how it arrived at that number. It is also unclear how the five-site monitoring requirement in Section I.C. of the Draft Permits relates to the requirement in Section I.D that permittees use water quality monitoring results to assess the effectiveness of their TMDL Action Plans. Before it finalizes these Permits, DEQ must explain why monitoring in five locations – a seemingly modest requirement for jurisdictions with so much land area and so many streams – will be representative of the Counties’ discharges and sufficient to verify their compliance with all permit limitations. If it cannot so explain, DEQ must impose additional monitoring requirements.

VI. Conclusion

As these comments indicate, the Draft Permits require significant improvements before they are ready to be approved. We urge DEQ to strengthen the Draft Permits in accordance with the requirements and recommendations set forth in these comments, and to bring the Draft Permits into compliance with all applicable legal requirements. Making these changes will help ensure that Chesterfield County and Prince William County do their part to clean up local water bodies and the Chesapeake Bay.

Sincerely,

the following members of the Choose Clean Water Coalition:

Pamela Goddard, National Parks Conservation Association

Rebecca Hammer, Natural Resources Defense Council

Amanda John, Potomac Conservancy

Emily Russell, Virginia Conservation Network

⁷² *Sierra Club v. Union Oil Co.*, 813 F.2d 1480, 1491 (9th Cir. 1987), *vacated on other grounds*, 485 U.S. 931 (1988), *reinstated*, 853 F.2d 667 (9th Cir. 1988).

⁷³ *Champion Int’l Corp. v. EPA*, 648 F.Supp. 1390, 1395 (W.D.N.C. 1986), *vacated on other grounds*, 850 F.2d 182 (4th Cir. 1988) (upholding EPA’s objection to a state-issued NPDES permit that failed to include adequate monitoring provisions, among other issues).

Bauer, Jaime (DEQ)

From: Adrienne Kotula [akotula@jrava.org]
Sent: Monday, November 03, 2014 12:57 PM
To: Bauer, Jaime (DEQ)
Subject: Chesterfield MS4 Permit Comments
Attachments: Chesterfield MS4 Permit JRA Comments.pdf

Good afternoon Jaime,

Enclosed please find the James River Association's comments on the Chesterfield MS4 Permit.

Thank you,
Adrienne

Adrienne Kotula
Policy Specialist
James River Association
Office: (804) 788-8811 x206
Mobile: (804) 938-7266



November 3, 2014

Ms. Jaime Bauer
Office of VPDES Permits
Virginia Department of Environmental Quality
629 East Main Street
P.O. Box 1105
Richmond, Virginia 23218
jaime.bauer@deq.virginia.gov

RE: Comments on Draft MS4 Permit No. VA0088609 for Chesterfield County, Virginia & Request for Public Hearing

Dear Ms. Bauer,

Thank you for the opportunity to comment on the very important issues regarding Chesterfield County's proposed Municipal Separate Storm Sewer System (MS4) permit. The James River Association is a conservation organization that has been solely dedicated to restoring and protecting the James River for over thirty years. On behalf of our thousands of members and supporters throughout Virginia, JRA supports the issuance of measurable and enforceable permit MS4 permit that meets the restoration goals of the Chesapeake Bay as well as local Total Maximum Daily Loads (TMDLs).

JRA has been involved in the effort to update Virginia's stormwater management program since 2005. We have served on TMDL development panels and worked with Department of Environmental Quality (DEQ) staff on the development of the Commonwealth's MS4 permits. We would like to commend the DEQ staff on the unprecedented level of effort that has been put forth in developing this permit and the numerous supporting methodologies and materials.

Growing Threat of Urban Stormwater Pollution

Urban stormwater pollution is a growing threat to the health of the James River and the rest of Virginia's waters. This is demonstrated by the title of the 2007 Evaluation Report by the U.S. Environmental Protection Agency Office of Inspector General: *Development Growth Outpacing Progress in Watershed Efforts to Restore Chesapeake Bay*. This is made even clearer in the U.S. Environmental Protection Agency Chesapeake Bay Program 2007 *Chesapeake Bay Health and*

Protecting America's Founding River

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Restoration Assessment, which showed that while progress has been made on each of the other 20 factors tracked in the Chesapeake Bay restoration effort, urban stormwater pollution has increased significantly. In Virginia, pollution from wastewater discharges and agricultural have declined over the past twenty years, but urban stormwater pollution is increasing and now accounts for over 20 percent of Virginia's nitrogen and phosphorus pollution to the Chesapeake Bay.

We must address the upward trend of urban stormwater pollution in order to fulfill Virginia's commitments to water quality and safeguard its waterways for future generations. Starting with the Commonwealth's constitution and extending to its stormwater and water quality laws to its participation in the regional Chesapeake Bay Agreements, Virginia has committed to clean healthy waterways. These regulations will determine in large part the future health of its critical water resources. The proposed regulations are necessary in order to achieve healthy, clean waterways while at the same time accommodating future growth.

The impact of not fully addressing this challenge is considerable. The James River, or America's Founding River, has played an integral role in the development of Virginia and today that critical role continues as a primary source of drinking water for millions of Virginians, an asset for commercial and industrial facilities that utilize the river and as a vital asset to our quality of life that is so important to our future prosperity. Urban stormwater, if left unaddressed, will undermine the value of this shared resource and diminish the public's well being.

Proposed Permit is a Crucial Step in Addressing Urban Stormwater Pollution

JRA believes that this permit represents a giant leap forward in the management of stormwater in Chesterfield County with specific, measureable and enforceable elements. By requiring the development of a Chesapeake Bay Action Plan as well as Action Plans for other TMDLs, this permit will provide a roadmap moving forward for the restoration of Chesterfield's waterways. The identification of retrofit projects and the requirement for DEQ to review such projects will additionally allow for restoration to move forward in a thoughtful and effective manner in the County. JRA supports these as vital elements of the permit as proposed.

Support for attaining Virginia's Chesapeake Bay TMDL

Virginia has committed to using MS4 permits to meet their urban sector pollution reductions by 2025. When this strategy was initially developed in 2010, fifteen years remained to achieve these reductions. Four years have passed without the issuance of a new permit for Chesterfield County and thus, only two full permit terms remain until the 2025 deadline.

While JRA supports the re-issuance of Chesterfield's permit, given the numerous delays in permit issuance and the 2025 deadline for achieving the pollution reductions of the Chesapeake Bay TMDL, we believe that greater pollution reductions must be required in this permit cycle. The Phase I Watershed Implementation Plan states that, "The Commonwealth will utilize MS4 permits to assure BMP implementation on existing developed lands to achieve nutrient and sediment reductions equivalent to Level 2 (L2) scoping run reductions **by 2025** for state and local MS4 operators (emphasis added)."ⁱ Given that the first two permit terms proposed within

the Phase I WIP were to require a 40 percent reduction in pollutants (five percent and 35 percent respectively) and that three permit terms are no longer possible prior to 2025, JRA believes that this permit should require a 40 percent reduction in pollutants towards the 2025 urban sector allocation.

At a minimum, in order to ensure continued progress and compliance with the Chesapeake Bay TMDL, this permit must include provisions that acknowledge and provide for modification when new Waste Load Allocations (WLAs) are approved as a part of the Phase III Watershed Implementation Plan process.ⁱⁱ Not only is it implausible to expect a permittee to attain 95% of their pollution reductions within one permit term, but consistency with WLAs is an integral element of these permits and must be maintained throughout the permit cycle.ⁱⁱⁱ Once new WLAs are approved, they must be incorporated in to the permit. Continued progress towards Chesapeake Bay restoration is imperative.

Support for greater public participation

The proposed permit contains no opportunity for public input during the development of TMDL Action Plans other than the Chesapeake Bay TMDL. These Action Plans will contain significant information regarding how Chesterfield County plans to attain their pollution reduction goals and as such, are required to involve the public. The Ninth Circuit has determined that “substantive information about how the operator of [an] MS4 will reduce discharges to the maximum extent practicable” must be “subject to the public availability and public hearings requirements of the Clean Water Act.”^{iv}

Support for public hearing

Below is a description of why JRA believes a public hearing is necessary, a brief statement regarding the nature and extent of the interest of JRA and its members, as well as specific references to the elements of the permit that we believe must be strengthened.

The JRA believes that a public hearing is necessary in order to inform Chesterfield County residents regarding the significant new permit requirements that are proposed and to provide them with an opportunity to have input on this issue. The County has not been issued a new MS4 permit since 2003 and the proposals contained within this permit represent a large leap forward in stormwater management.

The JRA staff and membership use Virginia water bodies, including those in Chesterfield County, for scientific study, educational programs, and recreational purposes that are vital to our mission. The JRA owns land and holds a lease to other property adjacent to the James River giving it valuable economic interests in protecting water quality. JRA’s members enjoy a wide range of recreational activities, including fishing, swimming, and boating, throughout the James River Basin and in other Virginia water bodies. Also, our members have important economic, professional, and aesthetic interests in the health of Virginia water bodies. Thus, JRA and our members have direct, substantial, past, and ongoing interests that will be affected by this regulatory action.

As detailed above, JRA believes that the pollution reductions called for with Section D of the permit fall short of the commitments that Virginia has made to restore the Chesapeake Bay by 2025. Progress towards meeting Bay restoration goals is an integral element of this MS4 permit and must keep Virginia on track with meeting 2025 goals. Additionally, the Action Plans that are to be developed for TMDLs other than the Chesapeake Bay must include a public comment period. These plans directly impact the citizens of Chesterfield County and they should have a say in their development.

Conclusion

The way that Virginia manages stormwater will be the single greatest factor determining the future health of Virginia's streams, creeks, rivers and bays and the condition in which we pass these shared natural assets to future generations. The James River Association strongly supports the issuance of Chesterfield County's new MS4 permit with the suggested revisions as a critical step towards fulfilling the Commonwealth's obligation under its constitution to provide clean water to all Virginians.

Just as clean water is a basic necessity and a right under the state constitution for every Virginian, every locality in the Commonwealth has a responsibility to do their part in achieving Virginia's water quality goals. This permit represents a fair and equitable step forward to achieve necessary pollution controls from existing development and to meet the complementary goals of environmental and economic health for Virginia.

Sincerely,



Adrienne Kotula
Policy Specialist
James River Association

ⁱ Commonwealth of Virginia Chesapeake Bay TMDL Phase I Watershed Implementation Plan, Page 91. November 29, 2010.

ⁱⁱ EPA Region III, Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed, Page 4.

ⁱⁱⁱ 40 C.F.R. 122.44(d)(1)(vii)(B)

^{iv} Environmental Defense Center v. EPA, 344 F.3d at 857.

Attachment 6 – Changes to the Draft Permit

Changes from the draft permit dated 9/30/2014 to final proposed permit.
Page 1

Draft Permit	Final Permit	Special Condition Changed	Change	Reason for Change
Cover Page	Cover Page	1 st Paragraph	3 rd line: set forth in this state permit.	Revised in accordance with 9VAC25-870 regulations.
Part I.A.2	Part I.A.2	Permittee Responsibilities	3 rd line: "refine" to "update."	Revised for clarity.
			4 th line: The Department has determined that this program implementation of the MS4 Program Plan reduces ...	Revised for clarity.
			6 th line: ...approved Total Maximum Daily Load (TMDL) , the permittee	Revise to establish acronym.
			Specific Reporting Requirements 2 nd bullet: list of those episodes-circumstances of non-compliance outside of the permittee's control.	Revised to clarify intent of reporting requirement.
			9 th line: complying with the assumptions and requirements of the applicable TMDL wasteload allocations, and such that the discharge does not cause	Revised so that the last sentence made sense.
Part I.A.4	Part I.A.4	MS4 Program Resources	1 st line: The permittee shall include submit to the Department...	Revised for clarity.
Part I.A.6	Part I.A.6	MS4 Program Plan	Added Stormwater Management Act citation and Chesapeake Bay Preservation Area Designation and Management Regulations citations.	Revised to incorporate the appropriate Code of Virginia law and DEQ regulatory citations.
			2 nd paragraph: Approvable Updates to the MS4 Program Plan shall be submitted to, reviewed and accepted by the Department for review and approval in accordance...	Revised for clarity.
Part I.A.7.a)3)	Part I.A.7.a)3)	MS4 Program Review and Updates	Best Management Practices (BMPs) specifically identified in this state permit with alternate strategies, policies, and Best Management Practices (BMPs) ...	Revised to establish and use acronym in appropriate order.
Part I.A.7.a)3)d)	Part I.A.7.a)3)d)		"and" to end of line	Corrected typographical error.
Part I.A.7.a)3)e)	Part I.A.7.a)3)e)		"and" struck from end of line	Corrected typographical error.
Part I.A.7.a)	Part I.A.7.a)		Closing paragraph, 2 nd sentence: Modifications s to Modification	Corrected typographical error.
Part I.A.7.b)	Part I.A.7.b)		Opening paragraph: Virginia—Stormwater—Management Program to VSMP	Revised to use acronym.
Part I.B.1.	Part I.B.1.	Planning	2 nd paragraph: be placed on the permittee's website no later than 30 days after it is submitted to the Department.	Revised to define time by which permittee must post plan on website.
<p><i>Numerous revisions were made to Part I.B.2.a) and Part I.B.2.b) to incorporate by reference the Virginia Erosion and Sediment Control and Stormwater Management Regulation requirements. Several permit conditions are removed that are included in these regulations. New condition merges the 2 special conditions. Below provides a description of each specific item that was revised.</i></p>				

**Changes from the draft permit dated 9/30/2014 to final proposed permit.
Page 2**

Draft Permit	Final Permit	Special Condition Changed	Change	Reason for Change
Part I.B.2.a)1)	Replaced	Construction Site Runoff	The permittee shall continue to implement a local erosion and sediment control program to reduce the discharge of pollutants from land disturbing activities that is consistent with the Virginia Erosion and Sediment Control Law and attendant regulations. If through a review of the Erosion and Sediment Control Program by the Department, the permittee's program is found not to be consistent with the Virginia Erosion and Sediment Control Laws and Regulations, the permittee shall implement all required items detailed in an approved Corrective Action Agreement (CAA) with the Board in accordance with the schedule in the CAA.	Replaced. Addressed under 9VAC25-870-D. Review and evaluation of VESCPs: minimum program standards. See change described below for new combined Part I.B.2.a)1).
Part I.B.2.a)2)	Deleted		The permittee shall require erosion and sediment controls in areas identified by the County as erosion impact areas as defined at § 62.1-44.15:51 of the Code of Virginia.	Defined in § 62.1-44.15:51 of the E&SC Law, "Erosion impact area" means an area of land not associated with current land-disturbing activity but subject to persistent soil erosion resulting in the delivery of sediment onto neighboring properties or into state waters. This definition shall not apply to any lot or parcel of land of 10,000 square feet or less used for residential purposes or to shorelines where the erosion results from wave action or other coastal processes. § 62.1-44.15:55 Regulated land-disturbing activities; submission and approval of erosion and sediment control plan. F. In order to prevent further erosion, a VESCP authority may require approval of an erosion and sediment control plan for any land identified by the VESCP authority as an erosion impact area
Part I.B.2.a)3)	Deleted		The permittee shall maintain an accurate list of all control measures in the MS4 program plan that are more stringent than those required under 9VAC25-840 et seq. that have been adopted by ordinance in accordance with § 62.1-44.15:65 of the Code of Virginia and 9VAC25-870 et seq that have been adopted by ordinance with in accordance with § 62.1-44.15:33 of the Code of Virginia.	Addressed in revised Part I.B.2.a) as described below.
Part I.B.2.a)4)	Deleted		On a monthly basis (or in accordance with an alternative schedule provided in writing by the Department), the permittee shall submit to the Department a list of approved land disturbing activities that are 1) greater than or equal to one acre, 2) part of a common plan of development or sale	Submitted as part of the ePermitting system that permittee (VSMPs) are required to use. There is

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			that results in an overall land disturbance that is greater than one acre or 3) a land disturbance greater than 2,500 square feet occurring in a Resource Management Area or Resource Protection Area as defined at 9VAC25-830-40. For each land-disturbing activity, the permittee shall submit the activity's location, total acreage disturbed and land disturber's contact information.	no need for the permittee to submit this information separately.
Part I.B.2.a)5)	Deleted		The permittee shall require that large construction activities and small construction activities as defined at 9VAC25-870-10 including municipal construction activities have secured separate VSMP authorizations to discharge stormwater.	Addressed in 9VAC25-870-380 B.1. Stormwater Discharges: Application requirements for stormwater discharges associated with large and small construction activity. "Dischargers of stormwater associated with large and small construction activity are required to apply for an individual state permit or seek coverage under a promulgated."
Part I.B.2.a)6)	Deleted		The permittee shall require the implementation of appropriate controls to prevent non-stormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections. The discharge of non-stormwater discharges other than those identified in Part I.A.1 through the MS4 is not authorized by this state permit.	Addressed under the authorized and non authorized discharges in Part I.A.1
Part I.B.2.b)1)	Replaced	Post Construction Site Runoff from Areas of New Development and Development on Prior Developed Lands	The permittee shall continue enforcement of local ordinances related to the control of stormwater runoff from new development and development on prior developed lands. Local ordinances shall be updated as required by statutory or regulatory requirements in order to remain consistent with Virginia Stormwater Management Program regulations (9VAC25-870-10 et. seq.).	Replaced. See change described below for new combined Part I.B.2.a) as described below.
Part I.B.2.b)2)	Deleted		The permittee shall maintain and update as necessary a list of all stormwater management controls in the MS4 program plan that are more stringent than those required under 9VAC25-870-10 et seq. that have been adopted by ordinance in accordance with § 62.1-44.15:33 of the Code of Virginia. The permittee shall continue to approve plans implementing these additional stormwater management controls in areas identified by the County as requiring additional water quality protection under the provisions of the Henrico County Code.	Addressed in revised Part I.B.2.a)2) as described below.
Part I.B.2.b)3)	Deleted		Where the permittee has adopted more stringent requirements or implemented a regional or watershed-wide stormwater management plan, it may request, in writing, that the Department consider these requirements as part of its	Under 9VAC25-870-160 B the state agency who is proposing the project to demonstrate why technical criteria established by the VSMP is not practicable for the project under consideration.

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			review of state projects within the County's jurisdictional boundaries.	While not completely contradictory, this requirement as written conflicts with the language in 9VAC25-870-160 B.
Part I.B.2.b)4)	Deleted		The permittee shall maintain and update as necessary a list of all stormwater management controls in the MS4 program plan that are more stringent than those required under 9VAC25-840-10 et seq. that have been adopted by ordinance in accordance with § 62.1-44.15:65 of the Code of Virginia	Addressed in revised Part I.B.2.a)2) as described below.
Part I.B.2.b)5)	Deleted		The permittee shall continue to require adequate long term operation and annual maintenance of stormwater management facilities by the responsible party. The permittee shall retain copies of these recorded maintenance instruments for its use. Should the permittee choose a strategy other than a maintenance agreement to address long term maintenance of stormwater control measures that are designed to treat stormwater runoff solely from the individual residential lot on which they are located, the permittee shall develop a written strategy no later than 12 months after the effective date of this state permit and shall include periodic inspections, homeowner outreach and education, maintenance agreements or other methods targeted at promoting the long term maintenance of such facilities	Addressed under 9VAC25-870-112 of the VSMP regulations.
Part I.B.2.b)6)	Deleted		Stormwater management facilities shall be tracked in accordance with Part I.C.5. of this state permit.	Redundant to Part I.C.4 tracking requirement.
Part I.B.2.a)1) and Part I.B.2.b)1)	Part I.B.2.a)1)	Construction Site Runoff and Post Construction Site Runoff from Areas of New Development and Development on Prior Developed Lands	The permittee shall implement local erosion and sediment control program consistent with the Virginia Erosion and Sediment Control Law §62.1-44.15:51 of the Code of Virginia and Virginia Erosion and Sediment Control Regulations 9VAC25-840 et seq. and a stormwater management program consistent with the Virginia Stormwater Management Act §62.1-44.15:24 of the Code of Virginia and Virginia Stormwater Management Program Regulations 9VAC25-870 et seq.	Streamline permit conditions to require erosion and sediment controls and stormwater management controls in accordance with the code of Virginia and DEQ regulations. Note that no change was made to the Specific Reporting Requirements as a result of the streamlining process.
Part I.B.2.a.2)	Part I.B.2.a)2)		The permittee shall identify in the MS4 Program Plan all legal authorities for erosion and sediment control that are more stringent than those required under 9VAC25-840 et seq. and/or 9VAC25-870 et seq. or that have been adopted in accordance with § 62.1-44.15:65 and/or § 62.1-44.15:33 of the Code of Virginia.	

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Part I.B.2.c)	Part I.B.2.b)	Retrofitting on Prior Developed Lands	Numerous revisions including: added statement that retrofit project requirement may be fulfilled using projects implemented to meet the Chesapeake Bay and Local TMDL action plan requirements; removed explanatory; language that DEQ's review will be to determine MEP; removed language stating DEQ may request additional/alternate projects; and removed reference to tracking and reporting.	Revised to clarify that TMDL Action Plan projects may meet retrofit requirements. Review and approval of projects will occur through the TMDL action plan review and approval process. DEQ has determined that implementation of the TMDL action plans constitutes MEP. DEQ's authority to request alternate or substitute projects may be exercised upon review of the TMDL action plans. Retrofit project tracking and reporting will occur as part of the TMDL Action Plan reporting requirements.
Part I.B.2.e)4)	Part I.B.2.c)4)	Roadways	Added: The permittee shall not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks or other paved surfaces.	Condition was originally included as part of the Pesticides, Herbicide, and Fertilizer Application special condition (Part I.B.2.e). it has been moved because it is more appropriate to include with roadways special condition.
Part I.B.2.f)2)	Part I.B.2.e)2)	Illicit Discharges and Improper Disposal	Revise minimum linear feet of sanitary sewer permittee is required to inspect from 300,000 to 375,000 over the term of the permit.	Upon review by DEQ, it was determined that this value was incorrectly included in the permit and does not accurately reflect the level of historical effort in sanitary sewer inspections for minimizing exfiltration to the storm sewer. The permittee inspects on average 100,000 linear feet of sanitary sewer annually. Over the course of the 5 year permit term this is approximately 500,000 linear feet. DEQ determined that a more appropriate value of 375,000 linear feet should be included in the permit. This is 75% of the 5 year average performed by the permittee allows for unpredictable problems with equipment, etc. This aligns the minimum requirement more closely with the program that the permittee implements while creating an enforceable numeric standard.
			Revised: The permittee shall continue implementing a sanitary sewer inspection program to maintain the integrity of minimize exfiltration from the sanitary system to the MS4.	Revised language to clarify the permittee is conducting inspections to minimize exfiltration from the sanitary system rather than maintaining the sanitary system. Maintenance of sanitary systems is regulated under the Virginia Sewage Collection and Treatment regulations, not the VSMP regulations.
Part I.B.2.g)	Part I.B.2.f)	Spill Prevention and Response	Revised: Each annual report shall include a list of spills, the source (identified to the best of the permittee's ability), and a description of follow-up activities taken.	Revised to clarify that if the permittee may not always be able to determine the source of a spill.

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Part I.B.2.h)1)	Part I.B.2.g)1)	Industrial & High Risk Runoff	Revised: The permittee shall maintain, and update as necessary, a list of all known industrial and high-risk dischargers to the MS4. This list will shall include VPDES industrial stormwater permits. and industrial stormwater facilities granted "no-exposure" certification by DEQ.	As written the permit condition requires the permittee to maintain a list of all industrial facilities. By granting a no exposure certification (NEC), DEQ has determined that the facility is not subject to the industrial stormwater permit program, does not have the potential to discharge contaminated stormwater, and therefore, isn't a significant source of pollutants. If the permittee determines that a facility with a NEC is contributing a significant load to the MS4, it will be captured under the requirement to refer unpermitted significant contributors to DEQ in Part I.B.2.g)5)(b) .
Part I.B.2.h)2)	Part I.B.2.g)2)	Industrial & High Risk Runoff	Revised: ...the permittee shall develop and implement a prioritized schedule and procedure to inspect outfalls of facilities with VPDES industrial stormwater permits and facilities granted "no-exposure" certification at the point of connection to the MS4.	
Part I.B.2.h)3)	Part I.B.2.g)3)	Industrial & High Risk Runoff	Revised: The permittee shall review copies of all discharge monitoring reports submitted to the permittee by all VPDES...	The permittee cannot review DMRs if they are not submitted by the industrial facility. Part I.B.2.h)5)(d) requires the permittee to notify DEQ if they are not receiving DMRs from VPDES stormwater permitted facilities.
Part I.B.2.h)	Part I.B.2.g)	Industrial & High Risk Runoff	Replaced word "substantial" with "significant."	Revised for consistency throughout the special condition.
Part I.B.2.h)4)	Part I.B.2.g)4)		Revised: ...Inspections of facilities for which the permittee has evidence of significant pollutant loading may be carried out in conjunction with other permittee programs. (e.g., pretreatment inspections of industrial users, health inspections, fire inspections, etc.), but shall include inspections for facilities not normally visited by the permittee.	Revised to provide clarity. The language originally was included to provide clarity but upon further review it was determined that the language made the requirements of the condition more confusing.
Part I.B.2.h)5)(c)	Part I.B.2.g)5)(c)		Revised: Any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4. as determined by a continued or regular exceedance of effluent limitations or benchmarks demonstrated by monitoring conducted as a requirement of the VPDES permit.	Removed phrasing because evidence of significant loading may not only be evidenced based on exceedances of benchmark monitoring requirements of the VPDES industrial stormwater permit.
Part I.B.2.h)6) including item (b)	Part I.B.2.g)6) including item (b)		Revised: The permittee shall maintain a list of any industrial and/or commercial stormwater dischargers not regulated under the Virginia State Water Control Law that it determines may be are contributing a significant pollutant loading to the MS4. This list may be individual discharges or categories of discharges. ...	Revised language to specify that the list is to include the stormwater dischargers not regulated by the Virginia State Water Law and that are contributing significant pollutant loading. Additionally, (b) is revised to provide examples of the types of industrial sectors that may be included on the list but are not required to be included if the permittee finds that they are not contributing significant pollutant loads.

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			(b)The list shall may include, but shall not be limited to: major automotive facilities such as repair shops, body shops, auto detailers, tire repair shops and service stations.	
Part I.B.2.h)	Part I.B.2.g)	Specific Reporting Requirement	Revised: Each annual report shall include a document listing DEQ coordination activities list of referrals to the Department.	Revised to clarify intent of reporting requirement.
Part I.B.2.i)	Part I.B.2.h)	Stormwater Infrastructure Management	Remove references to "easements."	Revised because even though the permittee may hold an easement to a piece of property does not meet that property necessarily includes stormwater infrastructure. Infrastructure maintenance and inspections are explicitly required and would include easements with stormwater infrastructure.
Part I.B.2.i)	Part I.B.2.h)	Stormwater Infrastructure Management	Remove reference to "catch basins."	Catch basins are inherently part of the MS4 and do not need to be separately identified for inspection and maintenance purposes.
Part I.B.2.i)	Part I.B.2.h)	Stormwater Infrastructure Management	3 rd bullet revised: Each annual report shall include a list of activities including inspections, maintenance, and repair of stormwater infrastructure operated by the permittee as required in <u>Part I.B.2.i)1)</u> , including the total number of stormwater structures operated by the permittee, the type and number of stormwater structures, number of catch basins inspected and maintained; the linear feet of storm sewer system owned and/or operated by the permittee, and the linear feet of storm sewer system inspected.	Revised to require appropriate reporting to demonstrate compliance with inspection requirements of the special condition.
Part I.B.2.i)	Part I.B.2.h)	Specific Reporting Requirements	7 th bullet revised: The second annual report submitted under this state permit shall include the information included in <u>Part I.B.2.i)4)</u> . The information shall be submitted in a format specified by the Department as an electronic file in one of the following formats shapefile, geodatabase, .xls, .xlsx, .csv, .mdx, .dbf, delimited text, XML, or other file approved by the Department.	Clarified the specific file formats for electronic reporting.
Part I.B.2.j)2)(b)	Part I.B.2.i)2)(b)	County Facilities – High Priority Facilities	Revised: The permittee shall develop and/or update and maintain implement individual stormwater pollution prevention plans for each high	Revised language to clarify that upon development or updating of SWPPP, the permittee must implement the SWPPP. Revision is in response to comment received during the public comment period.
Part I.B.2.k)4)	Part I.B.2.j)4)	Public Education/Participation	Revised: The permittee shall make available for public review the most current MS4 Program Plan upon request of interested parties in compliance with all applicable open records requirements. The permittee shall post the most current MS4 Program Plan on its website no later than 30 days after the effective date of this permit and maintain a	Revised condition to specify that the permittee must post the most current MS4 Program Plan within 30 days of the permit effective date on their website and require that the most current plan must be posted within 30 days of revision.

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			current copy on the website. If the MS4 Program Plan is modified or revised, the updated plan shall be posted within 30 days of the revision(s). Copies of the most current MS4 Program Plan shall be made available for public review upon request of interested parties in compliance with all applicable open records requirements.	
Part I.B.2.k)1)(c)	Part I.B.2.j)1)(c)	Public Education/Participation	Revised: ...that discharge to the permittee's MS4 that would encourage implementation of integrated management practice (IMP) plans	Upon educating the public, the permittee cannot require IMP be implemented. The best the permittee can do is <i>encourage</i> implementation of IMP.
Part I.B.2.l)3)	Part I.B.2.k)3)	Training	Revised: §3.42-3900 et seq.	Corrected improper statute citation.
Part I.B.2.l)5)	Part I.B.2.k)5)		Revised: The permittee shall have a program to ensure that the....	As previously written, condition could be interpreted to mean that all employees were required to have E&SC and stormwater certifications upon hiring.
Part I.B.2.l)6)	Part I.B.2.k)6)			
Part I.B.2.m)2)	Part I.B.2.l)2)	Wet Weather Screening	shall include the sampling and non-sampling techniques standard operating procedure to be use	Revised for clarity.
Part I.B.2.m)	Part I.B.2.l)	Wet Weather Screening Specific Reporting Requirements	Replaced use of monitoring with screening where appropriate.	Revised "monitoring" to "screening" for consistency with the permit special condition.
			3 rd Bullet: Each annual report following the initial annual report shall	Revised to clarify that the annual reporting requirement.
Part I.C.	Part I.C.	Monitoring	References to "County" revised to specify "Chesterfield County"	Revised for clarity.
Part I.C.2.d)	Part I.C.2.d)	In-Stream Monitoring	Revised: Monitoring for the parameters listed in <u>Part I.C.2.c)</u> shall be in accordance with 40-Part 134 Part II.A of this state permit.	Revised for consistency with monitoring requirements in Part II of the permit.
Part I.C.3	Part I.C.3	Floatables and Settleable Solids Monitoring	Remove references to "settleable solids."	<i>Settleable solids</i> is terminology used regarding human sanitary waste. The intent of the condition is for the permittee to establish a monitoring program to identify floatables (such as trash) generated from human activities.
Part I.C.4.a)1)	Part I.C.4.a)1)	Structural and Source Controls and Compliance Monitoring and Tracking	Revise stormwater management location tracking format of coordinates from "degrees, minutes, seconds" to "decimal degrees."	Revised to specify format by which permittee should report to DEQ.
			Closing paragraph revised to specify the acceptable electronic file formats for stormwater management facility data submitted by the permittee.	
Part I.C.4.	Part I.C.4.	Structural and Source Controls and Compliance Monitoring and Tracking Specific Reporting	Revised: The third fourth annual report submitted under this permit shall include an updated list of stormwater management facilities existing prior to issuance effective date of this permit.	Revised to correct the annual report in which the permittee is required to submit existing stormwater management facilities and clarify the intent of the definition of existing facilities is the permit effective date.

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		Requirements		
Part I.D.1.b)1)(a)	Part I.D.1.b)1)(a)	Chesapeake Bay TMDL Special Condition	Revised: ...and the permittee's ability to ensure compliance with this special condition...	Corrected typographical error.
Part I.D.1.b)1)(b)	Part I.D.1.b)1)(b)		Revised: ...implemented or needing to be implemented to meet the requirements of this special condition;	Clarified that as part of the action plan the permittee needs to submit the legal authorities that have been implemented or will need to be implemented to achieve the required reductions.
Part I.D.1.b)1)(e)	Part I.D.1.b)1)(e)		Revised: A determination of the total pollutant load reductions necessary to reduce the annual POC existing loads using Table 2 by multiplying the †Total eExisting aAcres sServed by MS4 by the First Permit Cycle Reduction in Loading Rate. total reduction required during the first permit cycle.	Revised language to match column headings in Table 2.
Part I.D.1.b)1) Table 2	Part I.D.1.b)1) Table 2		4 th column: First Permit Cycle Required Reduction in Loading Rate	Corrected typographical error.
Part I.D.1.b)1)(g)	Part I.D.1.b)1)(g)		Revised: ...June 30, 2014 that disturb greater than one acre or greater as a result of the utilization of an average land cover condition greater than 16%...	Revised to correct requirement and include offset from projects equal to one acre or greater.
Part I.D.1.b)1)(h)	Part I.D.1.b)1)(h)		Revised: ... to offset the increased loads from grandfathered projects in accordance with 9VAC25-870-48, that disturb greater than one acre or greater that beingbegin construction after July 1, 2014...	Revised to correct requirement and include offset from projects equal to one acre or greater and correct typographical errors.
Part I.D.1.b)2)(d)	Part I.D.1.b)2)(d)		Revised: offset program in accordance with §62.1-44. 15-50 19:20 through 62.1-44.19:23 et seq. of the Code	Corrected statute citation for nutrient trading.
Part I.D.1.c)1)	Part I.D.1.c)1)		Revised 1 st sentence: TMDL action plan required in Part I.D.1.b)1) of this state permit according to the schedule therein. Compliance with this requirement represents adequate progress for this state permit term towards achieving TMDL wasteload allocations consistent with the assumptions and requirements of the TMDL and shall be included in annual reports subsequent to the submission of the Chesapeake Bay Action Plan.	Correct typographical error and delete last portion of sentence so that condition makes sense. Annual reporting requirements are addressed in Part I.D.1.d).
Part I.D.1.c)2)(b)	Part I.D.1.c)2)(b)		Revised: Implementation of construction site runoff controls Part I.B.2.a) in accordance with this state permit shall address discharges from transitional sources	Revised for clarity.
Part I.D.1.c)2)(c)	Part I.D.1.c)2)(c)		Revised: Implementation of the means and methods to address discharges from new sources in accordance with requirements in Part I.B.2.ba) for post-construction runoff from areas of new development and development on prior	Revised to add permit condition citations for referenced reduction requirements for clarity.

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			developed lands and in order to offset 5% of the total increase in POC loads between July 1, 2009 and June 30, 2014 required in Part I.D.1.b)1)(g) and to offset increases in the POC load from grandfathered projects initiating construction after July 1, 2014 must be offset prior to completion of the project as required in Part I.D.1.b)1)(h); and,	
Part I.D.1.c)2)(d)	Part I.D.1.c)2)(d)		Revised: Implementation of means and methods sufficient to meet 5% required reductions of POC loads from existing sources defined in this state permit in accordance with the Chesapeake Bay TMDL Watershed Implementation Plan as required in Part I.D.1.b)1)(e).	Revised to add permit condition citations for referenced reduction requirements for clarity.
--	Part I.D.2.b)6)	TMDL Action Plans other than the Chesapeake Bay TMDL	Added: Solicit public input on the draft TMDL Action Plan and consider public comments in development of the final TMDL Action Plan that is submitted to the Department for review and approval.	Add requirement to explicitly require permittee to solicit public comment during the development of the local TMDL action plans as a result of comments received during the comment period.
Part I.D.3 Part I.D.4 Part I.D.5	Part I.D.2.c) Part I.D.2.d) Part I.D.2.e)		Renumbered.	Corrected format/numbering error.
Part I.D.2.4)	Part I.D.2.e)		Revised: The permittee is encouraged to participate as a stakeholder in the development of any TMDL implementation plans applicable to their discharge. The permittee may incorporate applicable best management practices identified in the TMDL implementation plan in the MS4 Program Plan. or may choose to implement BMPs of equivalent design and efficiency provided that the rationale for any substituted BMP is provided and the efficiency provided that the rationale for any substituted BMP is provided on the substituted BMP is consistent with the assumptions and requirements of the TMDL WLA.	Revise condition to correct confusing language resulting from copy and paste error.
Part I.F.	Part I.F.	Definitions – High Priority Municipal Facility	“High priority municipal facility” means any facility owned and operated by the permittee or regulated under this state permit that performs fleet maintenance; recycling activities; outdoor equipment and machinery storage; or the unloading, loading or storage of erodible, floatable or soluble materials or chemicals without protection from exposure to precipitation. includes composting facilities, equipment storage and maintenance facilities, materials storage yards, pesticide storage facilities, public works yards, recycling facilities, salt storage facilities, solid waste handling and	Revised to match small MS4 general permit definition.

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			transfer facilities, and vehicle storage and maintenance yards.	

General revisions throughout permit:

Change	Reason for Change
References to "Department of Environmental Quality" or "DEQ" revised to "Department."	"Department" defined in Part I.F Definitions section.
References to "county" revised to "permittee."	More appropriate terminology.
References to "MS4 Program" revised to "MS4 Program Plan."	Revised to correct word omission.
Permit condition numbers revised.	Revised after combining Part I.B.2.a) and b) because the condition number of subsequent special conditions changed.